

1895.
NEW ZEALAND

EDUCATION: TEACHERS' AND CIVIL SERVICE EXAMINATIONS.

[In continuation of E.-1A, 1894.]

Presented to both Houses of the General Assembly by command of His Excellency

The INSPECTOR-GENERAL of SCHOOLS to the Hon. the MINISTER of EDUCATION.

SIR,—

Education Department, Wellington, 26th April, 1895.

I have the honour to report that the annual examination of candidates for teachers' certificates took place in the month of January at the time prescribed by regulation, and that, as usual, the senior and junior examinations for the Civil Service were conducted under the same management and supervision. Candidates were examined at Whangarei, Thames, Opotiki, Gisborne, Westport, Kumara, Oamaru, and Cromwell, as well as at the thirteen Education Board centres.

The fees received amount to £953 8s. 6d., and the expenses of the examinations (including prizes for drawing and elementary science) to £756 14s. 8d.

The number of candidates entered for examination was 1,230. The candidates for the teachers' examinations were 690—191 for Class D, 152 "partial pass" candidates to complete the examination for Class D, 226 for Class E, and 121 "partial pass" candidates to complete the examination for Class E. Of these 690 candidates, 182 had already passed for Class E, and were seeking promotion to Class D. Of the remaining number—508—there were 91 teachers in the service of the Boards of Education or of the Department—254 pupil-teachers, 70 normal-school students in training, 40 persons who had ceased to be connected with the public-school system as teachers, pupil-teachers, or normal-school students, and 53 who had not been in any such way connected with the system.

Of the whole number of 690 candidates, 460 have improved their status through this examination, two having passed for Class C, 185 for Class D, 114 for Class E, while 70 (including 13 of those who passed for Class E) obtained a "partial pass" for Class D, and 91 obtained a "partial pass" for Class E. I enclose a list of passes and "partial passes."

The following table exhibits at one view the facts already stated with respect to the success of the candidates at the examination for teachers' certificates:—

Status before Examination.	Number of Candidates.	Results of the Examinations.					Total.
		Pass for D.	Pass for E.	Pass for E, and Partial Pass for D.	Partial Pass for D.	Partial Pass for E.	
Passed before for E	182	90*			22		112
Not passed before—							
Teachers	91	12	21	2	5	13	53
Pupil-teachers	254	28	73	7	13	65	186
Normal-students	70	42†	3	4	13	2	64
Retired	40	6	13		1	5	25
Outside candidates	53	7	4		3	6	20
Totals	690	185	114	13	57	91	460

* Including one pass for Class C.

† Including one pass for Class C.

The examination has added 52 names to the list of "failed" candidates, and has removed 34 from the list, increasing the number from 660 to 678.

Ten candidates availed themselves of the opportunity afforded to pupil-teachers to take up one branch of drawing in each year of their course, and 8 of them satisfied the examiner

For the Senior Civil Service 101 candidates entered, 26 of them to complete examination partially passed in a previous year, and two for shorthand only. There were 429 candidates for the Junior Civil Service examination. The results were published in the *Gazette* of 21st February. The passes in the Senior examination were 37 besides two in shorthand. The Junior list contained 255 names.

I enclose copies of the examination papers.

The Hon. the Minister of Education.

I have, &c.,

WM. JAS. HABENS.

EXAMINATION LISTS.

I.—PASSED FOR CLASS C (University status being taken into account).

Auckland—

Gatenby, William Joshua
North Canterbury—
Smith, James Ernest Richard

PASSED FOR CLASS D.

Auckland—

Bowden, Alfred Norman
Bower, Mary Isabel
Burfoot, Maud Hannah
Caldwell, Alice Mary
Campbell, Donald Roderick Frank
Carruth, Ada Eliza
Chappell, William
Clark, Charles William
Coad, Emma Maria
Connor, William John
Cox, James Thomas Gostick
Darby, Edward Joseph
Darrow, Harry Alexander
Draffin, William Henry
Field, Charles William
Field, Mary Ann
Goulter, Arthur James Bertram
Grant, Elsie Donaldson
Gubb, Lily
Hall, Alfred Joseph Charles
Hansen, Henrietta Louisa
Harris, Samuel
Haszard, Moore Fenwick
Hill, Alfred Ernest
Holloway, Annie Elizabeth
Ingram, William Nelson
Jameson, Frank
Johnston, James Harvey
Jones, Esther Mary
Lee, John Wesley
Maclaurin, Kenneth Campbell
Marsdon, William Henry Pasco
Matthews, Howard
Millington, Ellen
Mitchell, Marion Gertrude Florence
Munro, Colin Robert
Murphy, Francis
Oldham, Alfred
Phillips, Amy Constance
Priestley, Hannah Jane
Rapsdon, George Walter
Russell, David
Short, Arthur
Somerville, George Arthur
Thompson, Henry Harsant
Warn, John Martin
Waygood, James Evans
Wilson, George

Wanganui—

Corry, William
Goodland, Annie Eliza
Hankin, Frederic Stephen Mackeness
Insoll, Thomas Baker
Powell, Albert Hugh
Prendergast, Joanna
Sisley, Mary Katherine Winifred

Wellington—

Armstrong, Winifred
Banks, Annie Louisa
Bary Charles

Wellington—continued.

Bethune, Finlay
Braithwaite, Mary Susanna
Broome, Kate Ellinor
Foss, Reginald John
Jenkins, David Henry
Jones, George Adams
Kean, Annie Walker
King, Mary Ellen
Look, Edward John
McKenzie, Alexander
Ryder, Maud Harriett
Voysey William
Watson, Caroline Cudmore
Wilson, Mary Henrietta
Young, Mabel Florence
Hawke's Bay—
Bissell, John
Harvey, George
King, Walter Junius
Martin, William George
Power, James Livingstone
Scotter, Adolphus Nelson
Marlborough—
Douslin, Eugenie Minnie
Ingall, Eva Kate Maria
Nelson—
Baigent, Louis Oliver
Beuke, Amelia Sophia Mary
Brereton, Matilda
Dent, Alice Maude
Hall, William Arthur
Jordan, Fanny Sarah
Laird, Margaret
Ross, Helen Bruce
Rumbold, William Alexander
Sigley, Henry Charles
Grey—
Blair, Christina
Henderson, Beattie Mary
Rundle, William Arthur
Westland—
Davidson, James
Evans, William James
Mackay, William Donald
Potts, Mary Jardine
Seebeck, Albert Henry
Sinclair, George Kennedy
Sinclair, Jane Gertrude Bertha
North Canterbury—
Blackwell, Charlotte Edith
Charters, Alexander Burnet
Cook, John
Cordery, Eveline Edith Helen
Cradock, Mary Amelia
Crawford, James Melville Balfour
Cutler, Elizabeth Harriet
Disher, Annie
Dixon, Reginald
Dynes, Arabella
Ferguson, Richard Hay jun.
Joyce, Blanche
Kain, John
Lorimer, Jean
McDonald, William George
Menzies, Kitty
Menzies, Margaret Boyd
Morrow Jeannie Annie
Mounsey, Robert

North Canterbury—continued.

Pegler, Frank
Robbie, George Alexander
Seaton, Blanch Winifried
Scott, Elizabeth Mary
Trevella, Arthur
Webb, Fanny Aurelia
South Canterbury—
Brown, Gertrude Alice
Wood, Robert Taylor
Otago—
Allan, John Morrison
Andrew, Kate
Ash, Eva Mary
Birch, Annie
Brodie, Thomas
Calder, Elizabeth Mary
Cameron, Catherine (ii.)
Cameron, Louisa Fortescue
Clark, Jane
Cooke, Marget
Davidson, Joseph
Dickie, Margaret Denny
Dunlop, Margaret
Ferguson, Albert James
Foote, Frank
Gardiner, Eliza Jane
Gibson, William (ii.)
Gillanders, Isabella
Given, Jessie Isabel
Graham, Amy Segunda Frances de
Longueville
Grant, John Buchanan
Grigor, Janet Panton
Hendry Robert
Hodges, Bithia Lillie Campbell
Jordan, Ethel Augusta Percival
Kinder, Jessie
Kinder, John
Loudon, Mary (ii.)
Luscombe, Blanche
MacGregor, Charlotte Eliza
McIntyre, Isabella
Mackenzie, Margaret
McKenzie, Norman Laurence
McLay, James
McLeod, Helen Lundie
Masters, Jemima Ellen
Matheson, Duncan Robertson
Mosley, Annie
Moss, Catherine
Neil, Lydia
Nicolson, John McNaughton
Palmer, Ellen Harriett
Parlane, Andrew
Rawlinson, Charles Cattanach
Reid, Jessie Imlah
Reid, Wilhelmina Robertson
Rutherford, Violet
Steadman, David Dickie
White, Katharine
Southland—
Baird, Helen Stephen
Grant, Marianne
Hamilton, Janet Alexander
Hiddleston, John Frederick Crombie
Jackson, Elsie Maud
Young, Henry Paterson

PASSED FOR CLASS E.

Auckland—

Aickin, Florence Geraldine
 Andrew, Henry Paul
 Arey, Alice Mildred
 Ball, Eleanor
 Ball, Thomasina
 Baston, Florence Invererne
 Boden, Martha
 Bollard, John Ganly
 Boswell, James
 Boxall, Jane Eleanor
 Brook, Ann Elizabeth
 Brown, Janet Campbell
 Brown, William
 Byles, Frank Roussel
 Campbell, Hugh John Joseph
 Carr, Eva Helen
 Catran, Mary Emily
 Crawford, Annie
 Davis, Albert William Bulmer
 Dunlop, David Walter
 Eastgate, Florence Thorpe
 Edenborough, Mabel Kate
 Gibson, Elizabeth Mackechnie
 Goldsworthy, Clara Garrick
 Graham, Florence Evelyn Auckland
 Hamilton, Josephine
 Harris, Elizabeth Emily
 Hearne, Beatrice Gertrude
 Hefford, Jane Elizabeth
 Hueston, Janie
 Irwin, Alexandrina Mary
 Johnston, Susanna
 Jones, Richard David
 Keaney, John Joseph
 McKay, Annie Isabella
 Mandeno, Maud Catherine
 Masefield, Elizabeth
 Masefield, Fanny
 Maxwell, Florence
 Maxwell, Margaret
 Morison, Jessie
 Pilkington, William Andrew
 Pocock, George Harry
 Power, Edward Arthur
 Ramson, Marriane Gertrude
 Roberts, Laura Anna
 Robinson, Joshua Edwin
 Scandrett, Hessay Maria
 Selby, Mary Rebecca
 Shaw, Minnie
 Sutton, Elizabeth
 Taylor, William Waterworth
 Trayes, Alfred Ernest
 Udy, Inez Gatly
 Vellenoweth, Lilian
 Upton, Constance Mabel
 Wallis, Mary Ellen
 Woods, Francis David

Wanganui—
 Barr, Grace
 Chapple, Eleanor Cole
 Farr, Martha Mary
 Harding, Lydia Annie
 Kelly, Elizabeth Jane
 McDonogh, Annie Mary
 Mackay Duncan Henry
 Nairn, John Ralph
 Prendergast, Alicia Frances
 Spurdle, Helen Jane
 Staffan, Mary McKay

Wellington—
 Allender, Elizabeth
 Birnie, Rosanna
 Broadbent, Mary Agnes
 Cook, Eleanor Nugent
 Fitchett, Jessie Hannah
 Hall, Laura
 Hopwood, Mary Elizabeth
 Lockett, Annie Jane
 McGrath, John Joseph
 Miller, Jane McLaren
 Nelson, Kate Mary
 Scott, Eliza

Hawke's Bay—
 Caughtley, Christina Jane
 Faram, Edith Hope
 Montgomery, Annie Eliza
 Redward, Edith Mary
 Stewart, Agnes Grigor
 Tuely, Catherine Bertha
 Withy, Lydia Louise

Nelson—

Clifford, Rose Emily
 Fittall, Alice Ellen
 Neale, Emma

Grey—
 Turnbull, Elizabeth

Westland—
 Aitkin, Williamina Innes
 Crowley, Elizabeth Leo
 Mounatt, Margaret Ann Thompson
 Whelan, Elizabeth Cecelia

North Canterbury—
 Arnott, David
 Hill, Charlotte Jane
 Howard, Emily Charlotte
 Liggett, Sarah
 McRae, Jane
 Newton, Kate Evelyn
 Ormandy Dora Bartlett
 Reese, Jeanie
 Taylor, Ada Margery

South Canterbury—
 Avison, Lizzie
 Fyfe, Evelyn
 Oxy, Frederick Henry
 Riordan, Margaret Ann
 Smart, John Thomas

Otago—
 Budd, Elizabeth
 McMillan, Kate
 Main, Catherine Patterson
 Paterson, Elizabeth Smith
 Pretsch, Maria Selina
 Smith, Annie Lyall Grant
 Thomson, Magnus

Southland—
 Clark, Margaret Isabella
 Cumming, Margaret
 Keith, Ida Eliza
 McFadden, John
 McKenzie, Mary Sime Hunter
 McLeod, Mary Anderson
 Mail, Margaret
 Nixon, Caroline
 Reid, Alice
 Wilkins, Gertrude Mary

II.—OBTAINED PARTIAL PASS FOR CLASS D.

Auckland—

Browne, Edith Bernice
 Davis, Albert William Bulmer
 Elliott, Joseph Ernest
 Forde, Herbert Ernest
 Gatland, Alfred Hildyard
 Gelling, William Mansfield
 Gillett, Richard, jun.
 Harris, Richard John
 Hudson, John Holmes
 Johnston, Violet Alexandra
 Jones, Richard David
 Jones, Winifred Lucretia
 Keaney John Joseph
 Litten, Alfred Joseph
 Morison, Jessie
 Perry Arthur Mant
 Pilkington, William Andrew
 Thomson, Albert Henry William
 Turner, Alfred Arbutnot
 Walters, Ernest James
 Wily, Harry Herbert Daniel

Taranaki—
 Hine, Hubert
 Tipler, Gertrude Mary

Wanganui—
 Muir, William John Wilson

Wellington—
 Beavis, Maude
 Chapple, Emma Josephine
 Feist, Adolph Monod
 Fitchett, Jessie Hannah
 Gregory, Frederick William
 Kirk, George William
 Meager, Ellen Ann
 Sanson, Herbert

Hawke's Bay—
 Stewart, Agnes Grigor

Nelson—
 Johnson, Bessie Florence
 Malcolm, Alfred Andrew
 Riley, Eleanor Frances

Grey—

Harrison, Henry

Westland—
 Moore, Mary Margaret
 Whelan, Elizabeth Cecelia

North Canterbury—
 Andrews, Ernest Herbert
 Armstrong, Ella
 Bird, Eva Sarah
 Burn, Alice Meredith
 Hempleman, Jane Ann
 Hill, Charlotte Jane
 Howard, Emily Charlotte
 Hurse, Mary Alice Upton
 Meredith, Charles
 Reese, Jeanie
 Smith, Mabel

South Canterbury—
 Collins, Charles Frederick
 Miller, Margaret

Otago—
 Alexander, Janetta Crawford
 Budd, Elizabeth
 Church, Emma Knott
 McDougall, Jemima
 Main, Catherine Patterson
 Morgan, Annie
 Paterson, Elizabeth Smith
 Pretsch, Maria Selina
 Reid, John (iv.)
 Stenhouse, Christina
 Thomson, Magnus
 Turner, Lottie Meredith
 Williams, Ethel

Southland—
 Fraser, Robert
 Giffedder, Thomas Joseph
 Hewlett, Henry Charles
 McCallum, Mary
 Stockwell, Thomas Goldsborough

OBTAINED PARTIAL PASS FOR CLASS E.

Auckland—

Banks, Ernest Jasper
 Braithwaite, James Henry
 Cleghorn, Marion Wilson
 Darby, Isabella Mary Katherine
 Dunn, Florence Beatrice
 Eastgate, Mildred Mira
 Egan, Mary Francis
 Fraser, Mary
 Gibson, Henry Thomas (ii.)
 Gillman, Harriet Louisa
 Harper, Eva Mary
 Housley, Benjamin Cresswell
 Ingram, Christopher
 Kelly, Kate Anna
 Lambert, Marion Edith
 Muir, Minnie
 Murray, Alice Maud
 Paterson, Chrissie Steele
 Rae, Emily Elizabeth
 Rees, Margaret Gwendoline
 Skelton, Marcus Noble
 Souster, Bertha Agnes
 Stewart, Margaret (ii.)
 Vuglar, James
 Wallace, May
 White, Caroline
 Wilson, Estelle Rowleron
 Worth, Margaret Mary

Taranaki—
 Cooper, Marian
 Irvine, Margaret
 King, Clara Annie
 Mynott, Laura Elizabeth
 Reeve, Edith Mary
 Taylor, Minnie Isabel

Wanganui—
 Beaven, Annie Elizabeth
 Buchler, Arthur Owen
 Clapham, George Spencer
 Holden, Claude
 Jackson, Percy George
 McDonogh, Marian Hylton
 McEwen, Eliza May
 Matheson, Peter
 Purnell, George Proctor
 Ray, Josephine
 Reed, Amelia Dora

Wanganui—*continued*.

Shortall, Mary
Watts, Eleanor
Wellington—
Birnie, Helen
Evans, Ada Helen
McKenny Cecilia
Rothenberg, Sara
Hawke's Bay—
Halliday, George
King, Edmund Arthur
Magill, Annie
Petterson, Hilda Mary
Nelson—
Coleman, Bernard Francis Peter
Fittall, Florence Louisa
Glen, Lillias Reid
Liversey, Ernest Millington
Moore, Beryl
Quinton, Ellen Harriet
Snook, Ada Jane
Grey—
Dixon, Grace
Malone, Michael
Quinn, Ellen
Smith, Arabella
Townsend, Frances
Wickes, Arthur John
North Canterbury—
Brown, Edith May
Rae, Jessie
Smith, William (iv.)
South Canterbury—
Bates, Charlotte Annie
Evans, Amy Elizabeth
Jones, Amy Ellen
Lawlor, William
Talbot, Arthur Ernest
Werry, Alfred Ernest
Williams, Elizabeth Jane
Otago—
Brims, Blanche Dolina
Christie, Catherine Wallace
Evans, Lily
McDougall, Jemima
Southland—
Adams, Elizabeth Ann
Cameron, Eliza Marjorie
Joyce, Aline
McKay, Mary Gillanders
Meek, Robert Percy
Saunders, Jeannie Wilkie
Wilson, Jessie
Valpy, Percy James

III.—PRIZES.

Classes D and E.

Elementary Experimental Science—
Allan, John Morrison, Otago, first prize
Field, Charles William, Auckland, second prize
Scotter, Adolphus Nelson, Hawke's Bay, third prize
Drawing—
Gibson, Henry Thomas, Auckland, first prize
Wood, Robert Taylor, South Canterbury, second prize
Evans, Jessie V., Auckland, third prize

IV.—SPECIAL MENTION.

Class D.

English—
Laird, Margaret, Nelson
Smith, Mabel, North Canterbury
Wood, Robert Taylor, South Canterbury
History—
McIntyre, Isabella, Otago

Classes D and E.

Drawing—

Arnott, David, North Canterbury, freehand
Broadhurst, Frederick, Marlborough, freehand and model
Carr, Eva Helen, Auckland, freehand
Collins, Charles Frederick, South Canterbury, freehand
Dunn, Florence Beatrice, Auckland, freehand
Evans, Amy Elizabeth, South Canterbury, freehand
Evans, Jessie V., Auckland, freehand
Gibson, Henry Thomas, Auckland, freehand, model, and geometry
Goulter, Arthur James Bertram, Auckland, geometry
Graham, Florence Evelyn Auckland, Auckland, freehand
Halliday George, Hawke's Bay, freehand
Hamilton, Janet Alexander, Southland, freehand
Lambert, Marion Edith, Auckland, freehand
Lane, Margaret Fanny, Auckland, freehand and model
Liversey, Ernest Millington, Nelson, model
Meager, Clara, Wellington, model
Oxby, Frederick Henry South Canterbury, freehand
Sanderson, Helena, Wellington, model
Souster, Bertha Agnes, Auckland, freehand and model
Valpy, Percy James, Southland, freehand
Wallace, May, Auckland, freehand
Wood, Robert Taylor, South Canterbury, freehand and model

Class D.

French—

Power, James Livingstone, Hawke's Bay
Grant, Marianne, Southland
Chemistry—
Kean, Annie Walker, Wellington
Lamb, William Oliver, Auckland
Arithmetic—
Baigent, Louis Oliver, Nelson
Bissell, John, Hawke's Bay
Charters, Alexander Burnet, North Canterbury
Cook, John, North Canterbury
Collins, Charles Frederick, South Canterbury
McIntyre, Isabella, Otago

Geography—

Powell, Albert Hugh, Wanganui
Elementary Experimental Science—
Allan, John Morrison, Otago
Bissell, John, Hawke's Bay
Brereton, Matilda, Nelson
Burfoot, Maud Hannah, Auckland
Burn, Alice Meredith, North Canterbury
Campbell, Donald Roderick Frank, Auckland
Clark, Jane, Otago
Collins, Charles Frederick, South Canterbury
Feist, Adolph Monod, Wellington
Field, Charles William, Auckland
Hodges, Bithia Lillie Campbell, Otago
Liversey, Ernest Millington, Nelson
Look, Edward John, Wellington
MacGregor, Charlotte Eliza, Otago
McIntyre, Isabella, Otago
McKenzie, Norman Lawrence, Otago
Manning, Alice Mary Wellington
Meredith, Charles, North Canterbury
Parlane, Andrew, Otago
Powell, Albert Hugh, Wanganui

Elementary Experimental Science—*ctd.*

Rutherford, Violet, Otago
Scotter, Adolphus Nelson, Hawke's Bay
Sinclair, Jane Gertrude Bertha, Westland
Smith, James Ernest Richard, North Canterbury
Wood, Robert Taylor, South Canterbury
Algebra—
Baigent, Louis Oliver, Nelson
Bissell, John, Hawke's Bay
Charters, Alexander Burnet, North Canterbury
Collins, Charles Frederick, South Canterbury
Connor, William John, Auckland
Goulter, Arthur James Bertram, Auckland
Laird, Margaret, Nelson
Manifold, Dorothy, North Canterbury
Moore, Margaret, Westland
Mounsey, Robert, North Canterbury
Munro, Colin Robert, Auckland
Smith, Mabel, North Canterbury
Tipler, Gertrude May, Taranaki
Wood, Robert Taylor, South Canterbury
Euclid—
Scotter, Adolphus Nelson, Hawke's Bay
Wood, Robert Taylor, South Canterbury

Class E.

Arithmetic—

Andrew, Henry Paul, Auckland
Arnott, David, North Canterbury
Brown, Edith May, North Canterbury
McGrath, John Joseph, Wellington
Oxby, Frederick Henry, South Canterbury
Pretsch, Maria Selina, Otago
Rawlinson, Charles Cattanaach, Otago
Udy Inez Gately, Auckland

History—

Egan, Mary Frances, Auckland
Fyfe, Evelyn, South Canterbury
Harris, Elizabeth Emily, Auckland
Oxby, Frederick Henry, South Canterbury
Elementary Science—
Carr, Eva Ellen, Auckland
Clapham, George Spencer, Wanganui
Nairn, John Ralph, Wanganui
Oxby, Frederick Henry, South Canterbury
Pocock, George Harry, Auckland

Domestic Economy—

Brims, Blanche Dolina, Otago
Christie, Catherine Wallace, Otago
Crawford, Annie, Auckland
Dixon, Grace, Grey
Egan, Mary Frances, Auckland
Gillmann, Harriet Louisa, Auckland
Harris, Elizabeth Emily, Auckland
Keith, Ida Eliza, Southland
King, Letitia Churtrain, Hawke's Bay
Lindsay, Rose Earl, Hawke's Bay
McLean, Amelia, Nelson
Magill, Annie, Hawke's Bay
Newton, Kate Evelyn, North Canterbury
Nixon, Caroline, Southland
Petterson, Hilda Mary Hawke's Bay
Pringle, Marion Inglis, South Canterbury
Smith, Annie Lyall Grant, Otago
Snook, Ada Jane, Nelson
Taylor, Ada Margery, North Canterbury
Wilkins, Gertrude Mary, Southland
English—
Pretsch, Maria Selina, Otago

EXAMINATION PAPERS

School Management and Art of Teaching.—For Classes D and E Time allowed. 3 hours.

SECTION I.—TIME-TABLES.

1. Plan *one* of the following time-tables:—
 - (a.) For a junior department comprising Standards I. and II., together with three preparatory classes. Staff Assistant, and two pupil-teachers in their third and first years of service respectively
 - (b.) For a country school of 40 pupils. Classes. P., S.I., S.II., S.III., S.IV., S.V., under one teacher availing himself of the permission to group classes, afforded by the Regulations.
2. What good and bad points are there in the following arrangement* of a *day's* work in a school with six standards and an X class? There are two main rooms, with a class-room to each. Staff Head teacher, assistant, and three pupil-teachers.

SECTION II.—REGISTERS.

Fill in with due respect to reasonable probability the accompanying section of the public school register of daily attendance in a very small school. Assume the attendance to be fairly regular, but allow for one wet day, on which the numbers fall slightly below half the roll-number, and for one half-holiday. Note carefully the remarks. Make the ordinary weekly calculations.

SECTION III.—NOTES OF LESSONS.

[N.B.—The notes must give full details of the method to be employed in teaching the subject.]

Draw up notes of a lesson on one of the following subjects, stating length of lesson and class for which intended:—

- (a.) Kauri.
- (b.) The New Zealand travels of Captain Cook.
- (c.) The frozen-meat industry
- (d.) The direct mail route.
- (e.) The climate of your own district.
- (f.) The West Coast sounds, or other eminently picturesque part of the colony
- (g.) Any incident of importance in our New Zealand history

SECTION IV

1. Discuss the true value of transcription as a part of elementary school practice. How must the lesson be conducted to get the utmost possible value out of it?
2. How would you teach a Fourth Standard class to draw a map of the South Island?
3. What are the special merits of the "look and say" system (a) as a system, and (b) as applied to teaching English reading?

SECTION V

1. To what points would you give prominence in a lesson to Standard VI. on *one* of the following characters Queen Elizabeth, Lord Bacon, Oliver Cromwell, George III., Walpole, or the elder Pitt? What contrasts would you employ?
2. What use may be made of analysis of sentences in teaching composition and punctuation?
3. What results do you expect to obtain from your object-lessons, and how do you strive to secure them?

SECTION VI.

1. How would you endeavour to form a healthy school opinion, and what use would you make of it when formed?
2. If appointed to a school in which the attendance is very irregular, how would you endeavour to promote regularity?
3. What is the educational value of the playground to the teacher? How can he utilise it most effectively as a piece of the school machinery?

Elementary Experimental Science.—For Class D. Time allowed 3 hours.

1. Define "inertia," and mention any experiments which you would make when explaining the meaning of the word. What illustrations would you draw from ordinary life when describing this property of matter?
2. State exactly how you would explain to a class how it is that an iron dish will float on water
3. Explain the construction of the valves of an ordinary air-pump, and state how you would repair them if broken.
4. What simple experiments could be made with the view of exhibiting the different conducting-powers for heat of different substances?
5. In telling a group of children about the refraction of light, what would you say, and what would you do?
6. Give an account of any two forms of galvanic battery, and explain exactly how you would set each of them up.
7. Mention any three gases which are visibly different from one another, and state how each of them may be most conveniently prepared.

* See time-table, p. 26.

8. Describe exactly how you would—
 (a.) Bend a glass tube at right angles ;
 (b.) Blow a bulb on the end of a glass tube ,
 (c.) Fuse a piece of tube to the side of another so as to form a T piece.
9. Starch is converted into sugar by boiling with dilute acid. How would you proceed to convince a class that this change takes place ?
10. What experiments would you make if called upon to give a lesson on sulphuric acid ?

Elementary Science.—For Class E.—Time allowed 3 hours

[Women that are proficient in needlework may substitute for this paper the paper on Domestic Economy.]

1. Describe the three states of matter, and give experimental illustrations.
2. Give the meaning of the terms "momentum" and "energy, and classify the varieties of energy
3. Describe a diving-bell, and explain any simple mode of illustrating it.
4. Make a sketch of a system of pulleys to gain a power of six.
5. What is the meaning of the term "resonance" ? How would you illustrate it experimentally ?
6. Describe experiments to illustrate the distribution of electricity on a sphere, a cone, a cube, and a disc.
7. State what you know of the chemical action of a voltaic current.
8. Describe in detail the burning of a candle.
9. How would you prepare nitric and hydrochloric acids ? What experiments could you make with them ?
10. Describe the structure and function of the lungs.

Domestic Economy and Laws of Health.—For Class E Time allowed 3 hours.

[For women only,—alternative with Elementary Science.]

1. Make a sketch of the heart, and state its functions.
2. Indicate the chief chemical differences between plants and animals.
3. Carbonic acid is largely used to give lightness to bread and pastry : describe the modes in which it is generated for these purposes.
4. Discuss generally the value of exercise, and how it should be taken.
5. Describe the skin, and state its functions. How is it specialised as an organ of touch ?
6. What situation would you prefer for a house ? Give reasons for your choice.
7. Describe what measures you would adopt on the appearance of an infectious disease in your house.
8. Describe all the essentially different modes you are acquainted with of using eggs in food.
9. How would you prefer a schoolroom to be lighted ? State your reasons.
10. What do you know of the effect of long-continued pressure of various kinds in producing deformation of the bones, more particularly in children ?

Elementary Knowledge of Agriculture.—For Class D. Time allowed 3 hours.

1. Give an account of the wheat-plant, or of any grass. Describe the flower and fruit, and show how the flower is fertilised.
2. Describe experiments which show what food is absorbed by plants from the air
3. What elements do plants absorb from the soil, and in what way and in what form are they absorbed ? Describe experiments which illustrate your answer
4. Explain why water is so essential to the growth of a good crop. How do plants obtain water during dry weather ?
5. Of what substances do soils commonly consist ? How far does chemical analysis supply adequate information as to available plant-food in the soil ?
6. What do you understand by the "exhaustion of the soil," and how far is the term correct ? Is the exhaustion always due to the same cause ? How can it be remedied ?
7. What elements necessary for the growth of plants are most frequently wanting in the soil, and how could you supply them ? How would you ascertain what elements of plant-food were wanting in any particular soil ?
8. Distinguish between limestone, quicklime, and slaked lime. What are the uses of lime in agriculture ?
9. Give an account of the life-history of some insect which shows a complete metamorphosis. Explain the nature of the metamorphosis, and compare with insects in which there is no metamorphosis, or only an incomplete one.

Elementary Knowledge of Agriculture.—For Class E Time allowed : 3 hours.

1. Describe some flower which you know well, and explain the use of the various parts. Show how the seeds are formed from the flower
2. Describe the structure of some particular seed, and give an account of the changes it undergoes during germination. What conditions are necessary for germination ?
3. Explain why foliage-leaves are green, and show the relation of their colour to the nutrition of the plant. What do you know of plants which have no green leaves ?
4. In what way does the growth of a good crop depend upon warmth and moisture ?

5. Give some account of the nature and origin of the soil. What qualities should a good soil possess?

6. What are the objects to be attained by tillage? How far does tillage render manuring unnecessary?

7. What is the principle of the application of manures? What is green-manuring, and how far does it render the application of other manures unnecessary?

8. What are the advantages of draining the soil? Describe any experiments which would illustrate your meaning.

9. Give an account of a fungus parasitic upon any agricultural plant, showing how it grows, how it is reproduced, and in what way it is injurious to the plant it attacks.

English Grammar and Composition.—For Class D Time allowed 3 hours

[Of Question 2, either (a) or (b) may be answered, but not both.]

1. What is meant by the mood of a verb? What limitation has the imperative mood with respect to person, and why? What do you know about the origin and use of the gerundial infinitive?

2. (a.) Explain the grammatical construction of the following sentences as regards the words in italics:—O *had* I the wings of a dove. O Lord, *methought* what pain it was to drown. The ship was *about to sink*. Cowards die many *times* before their death. I did my very *best*. A great *many* men. Twice a week.

(b.) Explain the various uses of the words “by,” “as,” and “what” in the following expressions:—He put the question by, I did my duty by him, I sell coal by the ton; by-and-by, day by day As far as we know, bring such books as you have, he seemed as if he were half asleep. He asked what I said, what a man he was, what with one thing and another I feel quite bewildered, not but what he thought he was speaking the truth.

3. Punctuate the following passage, and put capital letters where required:—The horse was instantly pulled up policeman cried the first speaker have you seen a woman pass this way what sort of woman sir a woman in a lavender coloured gown no no interposed the second man she must have gone away in the clothes she wore when she came to us in white policeman a woman in white I haven't seen her sir if you or any of your men meet with the woman stop her and send her in careful keeping to that address the policeman looked at the card that was handed down to him why are we to stop her sir what has she done done she has escaped from my asylum don't forget a woman in white drive on.

4. Point out and correct anything you see wrong, grammatically or otherwise, in the following:—

Never was a man so annoyed or suffered half the uneasiness as I have done this evening.

This assertion, though made with the utmost confidence, was received with scorn and incredibility

The twenty-five lions which he killed during seven years gained for him the title of the Terrible Frank.

This is one of the most unique cases we ever heard of.

Confiscation, exile, or simple death, were esteemed uncommon instances of lenity

The only way to cure persons from talking in their sleep is to avoid taking a heavy supper, and to wake them whenever they begin to talk.

5. Rewrite the following so as to avoid the use of unnecessary words or changes of construction, and other faults or feebleness of style. In (c) the remark quoted should be given in the speaker's own words. In (d) note and give effect to the antithetical character of the passage:—

(c.) It is not known on what occasion Walpole made his first speech, and nothing is told us except that he was confused and in a state of embarrassment, and that the expectations of his friends failed to be realised. Another speaker followed him who spoke more fluently than he had done when an acute onlooker said that they might applaud the one and ridicule the other, but that they might depend on it that Walpole would become an excellent speaker in course of time, but that there would be no improvement in the gentleman who made the set speech. Walpole took pains to make the prediction come true, for he was active in business, attended to all that went on, keenly observed men and watched opportunity and he remained faithful to the principles and the party which he had determined to take for those to which he should belong.

(d.) If Cato may be severely censured for abandoning the cause of liberty, which cause he was not willing to survive, in what manner shall we express ourselves about the persons who embrace it with faintness or are irresolute in pursuit of it, and who when they have much to hope grow tired of it, and who when they have nothing to fear give it up?

6. Write an essay on one of the following subjects:—

Any poet of this century

Town and country children, any differences in circumstances, disposition, &c., bearing on school work.

The sea.

7. As a test of spelling, write from the dictation of the Supervisor

Part of a Paper on English Grammar and Composition.—For Class D.

Spelling:—

The superstitious mercenaries stood aghast before the prodigies exhibited by the wily soothsayer Their chieftain adroitly seized the opportunity He galloped to the front, and, wielding the scimitar that had so often pierced to the centre of the enemy's battalions, he with emphatic gestures inveighed against the treachery of his intriguing colleague.

Idiosyncrasy, indefensible, unparalleled, menagerie, analytical, synonym, oligarchy, untrammelled, poignant, cochineal.

English Grammar and Composition.—For Class E, and for Junior Civil Service. Time allowed 3 hours

1. As a test of spelling, write the words dictated by the Supervisor [Candidates are requested to number the words, to write them in a column, and to use a separate sheet of paper for the spelling exercise. The words must be written distinctly. No marks will be given for any word that contains a doubtful letter.]

2. Mention and illustrate the imperfections or anomalies of the English alphabet.

3. Distinguish between the strong and the weak conjugation of verbs. Classify (1) strong verbs, and (2) weak verbs, and give a few examples of each class.

4. Name (1) the indefinite, and (2) the distributive, pronouns, and remark on their history and use.

5. Mention, with examples, the various adverbial adjuncts used in sentence-structure.

6. Give the *general analysis* of the following passage and parse *in full* the words in italics:—

“Now stir the fire, and close the shutters *fast*,
Let *fall* the curtains, *wheel* the sofa round,
And, while the bubbling and loud-hissing urn
Throws up a steamy column, and the cups
That cheer but not inebriate *wait on each*,
So let us welcome peaceful evening in.”

7. Rewrite the following sentences in correct English:—

(1.) We were left to the choice of three alternatives.

(2.) Living in an atmosphere of crime, his end was just what he deserved.

(3.) This is the greatest blunder of all the rest.

(4.) He admires Quaker principles, but could not live with them.

(5.) He has been either educated at home or at a private school.

8. Rewrite the following passage from Macaulay, so as to show your acquaintance with different types of sentences:—

“A minute account of what passed in one district at this time has come down to us, and well illustrates the general state of the kingdom. The south-western part of Kerry is now well known as the most beautiful tract in the British Isles. The beauties of that country are, indeed, too often hidden in the mist and rain which the west wind brings up from a boundless ocean. But, on the rare days when the sun shines out in all his glory, the landscape has a freshness and a warmth of colouring seldom found in our latitude.

9. Write about two pages on *one* of the following subjects, attending carefully throughout to expression, punctuation, and neatness of form

(1.) A Railway Journey

(2.) A Day at School.

(3.) A Public Holiday

10. Punctuate the following passage, and put capitals where they are required:—

among lady-novelists about the beginning of the present century miss edgeworth and miss austen were undoubtedly the first in talent so far as they remind us of previous novelists of the other sex it is most as might be expected of richardson but while resembling him in minuteness of observation in good sense and in clear moral aim they present many differences all in all as far as my information goes the best judges unanimously prefer miss austen to any of her contemporaries of the same order they reckon her sense and sensibility her pride and prejudice her mansfield park and her emma as not only better than anything else of the kind written in her day but also among the most perfect and charming fictions in the language i have known the most hard-headed men in ecstasies with them and the only objection i have heard of as brought against them by ladies is that they reveal too many of their secrets.

[Candidates are requested to write the punctuation exercise on a separate sheet of paper. No marks will be given for any point unless it is quite distinct.]

Part of a Paper on English Grammar and Composition.—For Class E, and for Junior Civil Service.

Abridgment, elegiac, irrefragable, schism, eclecticism, fidgety, jeopardy, riveting, trisyllabic, categorical, haranguing, parallelism, quiescent, amenity, rescind, sidereal, expatiate, bronchitis, empirical, metonymy

English.—For Senior Civil Service. Time allowed 3 hours.

PAPER No. 1. COMPOSITION AND PRÉCIS.

1. Write an essay on one of the following subjects:—

The effects of early circumstances and education upon character, exemplified in the case of Harry Esmond.

The character of Brutus, and in what respects he was unfitted for dealing with the circumstances in which he became involved.

The advantages of cheap postage.

Prevention is better than cure.

2. Make an abstract of the accompanying correspondence. The abstract must give the date of each letter, the names of the writer and the person addressed, and, in as few words as possible, the subject.

3. Draw up a memorandum or *précis* of the same correspondence—*i.e.*, a brief and clear statement of what passed, not letter by letter, but in narrative form. The *précis* should include everything material, and be expressed very clearly and as briefly as is compatible with completeness and distinctness.

GENTLEMEN,—

Colonial Treasurer's Office, Wellington, 22nd September, 1894.

I have the honour to acknowledge the receipt of your joint letter of the 11th instant, covering proposals for an amalgamation between the Bank of New Zealand and the Colonial Bank.

In reply, I have to state that the matter has received the careful consideration of the Government.

Without in any way committing the Government to any fixed course, or approval of the proposals, it will be necessary—

1. If any legislation is undertaken by the Government, that it shall be of a permissive character, to enable the Government to be satisfied, before assenting to an amalgamation, that the general interests of the colony are conserved and protected :

2. That, in addition to the scrutiny which is proposed in the memorandum of agreement, the Government to appoint a special representative or representatives, independent of either bank, to examine and report to the Government on the various accounts and assets proposed to be dealt with

3. The shareholders of each bank to be responsible for and to make good all losses on existing business that is not passed by the colony's valuers

4. That, upon the expiration of ten years, the profits of the combined bank shall still continue to be paid to the Estates Company, until any deficit in the winding-up of the Estates Company is liquidated. The Government lien upon the interests of the shareholders in the Bank of New Zealand to be continuous until all liability to the colony is at end

5. The Government to nominate a chairman and two directors of the Estates Company, and the shareholders of the Bank of New Zealand to nominate two directors to the same, the said Board to have full control over the uncalled capital of £1,500,000 of the Bank of New Zealand shareholders

6. In addition of the appointment of a president and auditor to the Bank of New Zealand, the Government to appoint one director to the combined bank.

I should like to have your reply to the foregoing before noon on Monday. The Government will then further consider the matter, and decide what course they deem it desirable to take.

I have, &c.,

J. G. WARD,

Colonial Treasurer

John Murray, Esq., and the Hon. George McLean,
Wellington.

SIR,—

Bank of New Zealand, Wellington, 24th September, 1894.

I have the honour to acknowledge receipt of your letter of 22nd September, having reference to amalgamation of the Bank of New Zealand and the Colonial Bank of New Zealand, and setting forth certain supplementary conditions as necessarily precedent to any action therein by the Government.

These conditions—1 to 4 inclusive—I should willingly recommend to bank shareholders, but I greatly regret I cannot say so of Nos. 5 and 6, nor do I think that, even were I to recommend them, the shareholders in the Bank of New Zealand would entertain them.

It will probably make the position more clear if I begin with 6, which is that, "in addition to the appointment of a president and auditor to the Bank of New Zealand, the Government to appoint one director to the combined bank."

In considering this stipulation, I would ask the Government to bear in mind that Bank of New Zealand shareholders are responsible for the future of the bank not only to the extent of their large paid-up capital, future profits without limit of time, and reserve liability £1,500,000, because, under the terms of the provisional agreement, 4 per cent. is to be debited to the Estates Company on account of the large item "Share Account," and in consideration therefor surplus profits after a dividend of 6 per cent., and £20,000 to reserve, are to be returned to the Estates Company

Now, should there be ineffective management the consequences would appear in the amount of surplus to be paid over to the Estates Company, for the outcome of which shareholders are liable in the great sums I have named, while, with only four directors on the new Board to the Colonial Bank three, and a director and the president (also a director) nominated by the Government, Bank of New Zealand shareholders would be in a minority—though primarily liable for results, would be at the mercy of persons not of their appointment and beyond their control.

It is of the essence of the arrangement embodied in the Share Guarantee Bill that the shareholders should, by directors of their own appointment, manage the bank, the Government maintaining audit and power of veto on objectionable business. To take the ordinary management out of the control of shareholders, while yet holding them responsible for its results, would, I feel sure, be regarded by them as inequitable.

The explanations I have given above will serve to make clear the reasons why clause 5 also would not be assented to.

Shareholders, being held responsible to the extent of over £2,000,000, cannot, I submit, be reasonably expected to part with the control of their property to a person in whose selection they have no say, and hand over to him the power to make calls upon them. Clearly, as between two directors appointed on each side, the chairman would exercise, at least as regards the shareholders, supreme power

At the same time I feel sure there will be no objection made to the Government taking an effective part, if they wish, in the management of the Estates Company

In conclusion, I desire to point out that an erroneous impression has been disseminated that legislation is in some way necessary to free the bank from the Estates Company. Except as a condition of amalgamation made by the Colonial Bank there is no such necessity. It is already a separate company, and separately administered, though to a large extent under bank control.

As to its being a burden on the bank, it is only so in the sense of being a burden on bank shareholders, which it must of necessity remain till it be liquidated, unless the colony were to relieve them, which nobody proposes.

The Hon. the Colonial Treasurer, Wellington.

I have, &c.,

JOHN MURRAY.

SIR,—

Dunedin, 24th September, 1894.

I have the honour to acknowledge the receipt of your letter of 22nd September, and have submitted the contents to my colleagues here. In reply I am desired to state that the conditions imposed by you make the scheme such as we could not recommend to our shareholders. Taking the clauses of your letter seriatim,—

1. We do not object to the permissive character of the proposed legislation.

2. We have not the slightest objection to your appointing representatives to examine the condition of our accounts and assets, and refer you to our letter of the 20th July. When applying for a share of the Government account we specially asked the Government to do this before giving us that share.

3. This stipulation is all right, and was fully provided for in the agreement so far as the scrutiny by the other bank was concerned. We have no objection to its application to the suggested further scrutiny.

4. This so vitally affects the interests of our shareholders that we will not under any circumstances agree to propose it to them. It would be an invitation to spread the realisation of the Assets Company over an indefinite period, and would make our shareholders' dividends responsible beyond what can fairly be asked or was ever intended. This bank will have no voice in the management or realisation of the assets. Regarding the Government lien on the interests of the present shareholders of the Bank of New Zealand we can raise no objection.

5. This does not immediately concern us.

6. The powers possessed by the Government under the scheme submitted and under clause 2 above—namely, a president with a power of veto, an auditor, and a preliminary scrutiny of assets and accounts to be made by a Government representative, on whose report the acceptance by the Government of the whole scheme will depend—must be held to be sufficient. It is obvious that the presence of a nominee of the Government on the Board would detrimentally affect the business of the bank.

Final clause. The assent to amalgamation on the part of the Colonial Bank would greatly depend upon the shareholders being represented in the amalgamated institution by men in whom they had confidence. Without this guarantee there would be little prospect of obtaining the necessary consent. The attitude which the directors at the general meeting on Wednesday must take up with regard to the proposed amalgamation will evidently so largely depend upon the answer which we receive to this, that I must ask you to reply as definitely as possible on the whole affair not later than noon to-morrow.

The Hon. the Colonial Treasurer, Wellington.

I have, &c.,

GEO. McLEAN

SIR,—

Wellington, 24th September, 1894.

The Government have carefully considered your communication of to-day, and, in reply, I have the honour to inform you that they cannot see their way to depart from the conditions named in my letter of the 22nd instant.

I have, &c.,

J G WARD,

Colonial Treasurer

J Murray, Esq., Wellington.

SIR,—

Wellington, 24th September, 1894.

The Government have carefully considered your communication of to-day, and, in reply, I have the honour to inform you that they cannot see their way to depart from the conditions named in my letter of the 22nd instant.

I have, &c.,

J G WARD,

Colonial Treasurer

The Hon. G. McLean, Dunedin.

English.—For Senior Civil Service. Time allowed 3 hours

PART 2.—LITERATURE AND BOOKS.

1. What reasons did Cassius give for wishing to engage Brutus in his conspiracy? Upon what points was Cassius afterwards overruled by Brutus, and with what effect upon the fortunes of the conspirators?

2. On what occasions, and with what object, does Shakespeare introduce anything of a supernatural character before the death of Julius Cæsar?

3. Explain the following passages:—

(a.) Swear priests, and cowards, and men cautelous,
Old feeble carrions, and such suffering souls
That welcome wrongs, unto bad causes swear
Such creatures as men doubt; but do not stain
The even virtue of our enterprise,
Nor the insuppressive mettle of our spirits,
To think that or our cause or our performance
Did need an oath.

(b.) You know that I held Epicurus strong
And his opinion now I change my mind,
And partly credit things that do presage.

(c.) He shall not live, look, with a spot I damn him.

4. How and when did Harry Esmond learn the truth about his birth, and on what occasion was it made known to Beatrix?

5. What may be gathered from "Esmond" as to the social and political condition of the country at the time the events are supposed to have occurred?

6. Give the names of any real persons introduced in "Esmond," and say on what occasions they appear

7. Name the principal writers of poetry who lived during the latter part of the eighteenth century, and point to anything in their works that appears to anticipate or suggest coming revolution.

8. Who are the authors of the following works? State very briefly the purport of each. The Citizen of the World, The Rosciad; The Decline and Fall of the Roman Empire, The Wealth of Nations, The Diversions of Purley, Horæ Paulinæ.

Arithmetic.—For Class D. Time allowed: 3 hours

1. The quotient, after dividing a certain number by sixteen millions seven hundred and thirty-two thousand one hundred and ninety-eight, is two hundred and seventy-three, and the remainder is sixty-nine. Find the number

2. Define a fraction and from your definition show that $\frac{2}{7}$ of $\frac{4}{5}$ of any quantity is the same as $\frac{12}{35}$ of that quantity.

3. Simplify—

$$(1) \frac{2}{3} \text{ of } 1\frac{2}{3} \text{ of } 1\frac{2}{3} - \frac{2}{3} \text{ of } (1 - \frac{1}{2} \text{ of } 1\frac{1}{2}) \text{ of } 1\frac{1}{2}$$

$$(2) \frac{428571}{714285}$$

$$(3) \left(\frac{\frac{2}{7} + \frac{1}{3}}{\frac{2}{7} - \frac{1}{3}} + \frac{\frac{2}{7} - \frac{1}{3}}{\frac{2}{7} + \frac{1}{3}} \right) \div \left(\frac{1 + \frac{1}{5}}{1 - \frac{1}{5}} + \frac{1 - \frac{1}{5}}{1 + \frac{1}{5}} \right)$$

4. Find, by Practice, the cost of 457 tons 2cwt. 3qr 12lb. of hay at £4 13s. 4d. per ton.

5. Make out an invoice for the following goods: 4lb. sugar at 5d. per lb., 7lb. oatmeal, at 1s. 10d. per stone 2lb. raisins, at 7d. per lb. 5lb. currants, at 6d., 6lb. candles, at 9d., 7lb. bacon, at 11d., 2lb. tea, at 2s. 6d., 4 gallons kerosene, at 1s. 6d. per gallon, 1 dozen boxes matches, at 3 boxes for 2½d.

6. Find the present value of £8,869,743 due in three years' time, at 3½ per cent., compound interest.

7. Find, to the nearest penny, the income derivable from investing £5,000 in New Zealand 4-per-cent. stock at 106, allowing $\frac{1}{8}$ per cent. commission for brokerage. How much less would be obtained by investing in 3½-per-cent. stock at par?

8. The squares of the periodic times of different planets are proportional to the cubes of their mean distances from the sun. Given that the mean distance of Jupiter from the sun is five and one-fifth times that of the earth, find the number of terrestrial days in Jupiter's year. Assuming that Jupiter revolves on his axis once in ten hours, find the number of his days in his periodic time.

9. A rectangular room is as high as it is broad, the length is to the breadth as 81 to 44, and the room contains 5,808 cubic feet. A carpet is laid on the floor, leaving a margin uncovered of 1ft. 4in. along each side and one end, and of 1ft. 8in. at the other end. Find the cost of the carpet at 4s. 6d. the square yard.

10. A man buys 30 shares in a company at £10 7s. 6d. per share. A year later he buys 20 more shares at £11 2s. 6d. per share. The half-yearly dividend on each share being 7s. 6d., what rate of interest per annum does he get on the whole investment?

11. It takes 8 men and 2 boys 11 days to dig a trench 57ft. long, 4ft. deep, with a width of 7ft. at the top and 4ft. at the bottom. The day's work of a man being double that of a boy find how long it will take 7 men and 4 boys to dig a trench 72ft. long, 4½ft. deep, with a width of 5ft. at the top and 3ft. at the bottom.

12. An iron tank is in the shape of a cube whose outer edge is 3ft. The thickness of the bottom is 1in., and throughout the sides $\frac{1}{2}$ in., and there is no top. Find the weight of the water and tank when it is full, it being given that a cubic foot of water weighs 1,000oz., and that the specific gravity of iron relative to water is 7½.

Arithmetic.—For Class E, and for Junior Civil Service. Time allowed 3 hours.

1. What is the difference between true discount and commercial or banking discount?

Find both the true and the commercial discount on a bill for £135, drawn on the 27th June at four months, and discounted on the 1st August, at 7½ per cent. per annum.

2. The quotient is $\frac{2}{3}$, and the dividend $\frac{4}{5}$ of $\frac{2}{7}$ of $10\frac{1}{2}$ find the divisor. State the reasons for your work.

3. Find the principal that will amount to £543 5s. 11¼d. in three years at 5½ per cent. per annum, simple interest.

Give the rationale of your method of finding the answer

4. What is a recurring decimal?

Divide .015 by .0003. How many times can .3 be taken from 4.3?

5. Find the cost of papering a room 5¼ yards long, 3½ yards wide, and 11ft. high, with paper 2ft. wide, at 4¼d. per yard.

6. Convert 3407.20 American dollars into French money at 5 francs 15 centimes per dollar, Convert the same into English money at 4s. 2d. per dollar

7. A cistern can be filled by one pipe in two hours, by another in three, and can be emptied by a third in six hours if, when the cistern is half full, all three be opened at the same instant, in what time will the cistern be filled?

8. Reduce 36 florins 7 cents 5 mils to sterling money

9. The map of a country is drawn on the scale of an inch to five miles. What area on the map will represent a lake 6,000 acres in extent?

10. The adjacent sides of a rectangular field are in the ratio of three to four, and a man walking at the rate of three and a half miles an hour will walk round the boundary in eight minutes. What is the size of the field?

11. Reduce $\frac{1}{3}$ of 13 square metres to the decimal of .0325 of a square yard, a metre being taken as 39.37 inches.

12. If 3 men and 1 boy can reap 13 acres in 4 days, and 14 men and 10 boys can reap 33 acres in 2 days, how long will it take 1 man and 1 boy to reap 5 acres?

Arithmetic.—For Senior Civil Service. Time allowed 3 hours

1. Find, correct to five places of decimals, the value of $\frac{\sqrt{2}}{\sqrt{3}+1} + \frac{\sqrt{2}}{\sqrt{3}-1}$.

2. Simplify $\frac{\dot{1}\ddot{8}}{\frac{3}{5}-\frac{1}{5}} \times .36 - \frac{\dot{4}2857\dot{1}-\frac{1}{3}}{\cdot 5}$

3. Given that an inch = 2.539954 centimetres, express a kilometre in terms of a mile.

4. A canal is 100ft. wide, and of a uniform depth of 25ft. A stream flows through it at the rate of a mile an hour Find what weight of water it discharges in 24 hours, assuming that a cubic foot of water weighs 62 $\frac{1}{2}$ lb.

5. In a town in which the rateable value of the property is taken to be 90 per cent. of the rent actually paid, a man finds that when a rate of 9 $\frac{1}{2}$ d. in the pound has been struck his rates amount to £4 5s. 6d. What is his rent?

6. Find the discount on £4,630 10s., due three years hence, reckoning compound interest at 5 per cent.

7. A fruiterer buys four dozen oranges for a shilling, he pays for freight and packing half a crown. If 13 oranges are completely spoiled in transit, how many must he sell for a shilling to gain 25 per cent.?

8. Find the change in a man's income when £9473.424 stock is transferred from the 3-percents at 95 $\frac{3}{8}$ to the 4 $\frac{1}{2}$ -percents at 111 $\frac{7}{8}$.

9. State the rule for determining whether a given year is a leap-year

In the year 1880 there were five Sundays in the month of February find in what year this will next happen.

10. A firm overdraws its account on February 24th, 1894, by £2,000 its financial year closes on September 30th, and it is found that the gain for the year on a capital of £40,000 is £8,000. Supposing the overdraft paid off with interest at 6 per cent. per annum, at what rate can a dividend be declared?

Find also the share of the profits which each of three partners will get, assuming that their invested capitals are in the ratio of 3 4 5.

11. A piece of work can be done by A and B working together in 10 days, and, assuming that they are paid in proportion to their rates of working, it costs £9. A begins to work at it alone, and continues for 18 $\frac{3}{4}$ days, after A has left off, B is set to work, and finishes the job in 3 days. How should the £9 be divided between them?

12. Two cubic inches of mercury weigh 1lb. avoirdupois, and 100 cubic inches of air on a certain day weigh 30 grains. If the weight of the column of mercury in a barometer tube be equal to that of a column of air on the same base as the mercurial column, find the height of the barometer, assuming that the height of the atmosphere may be taken to be five miles.

Geography.—For Class D Time allowed 3 hours

1. Explain—Ecliptic, zodiac, solstice, zenith, isobar, parallax, isotherm, equinox.

2. State the arguments that may be used in favour of the theory that New Zealand once formed part of a continental area.

3. Why is the difference in miles between degrees of longitude much greater than between degrees of latitude? What is the length of a degree of longitude at the Equator and at the South Pole?

4. What is twilight? How is it caused? Why is its duration longer in some parts of the globe than in others? In what region is the duration least?

5. Write a descriptive essay on each of the following localities Westland, the Thames gold-field, the Bluff.

6. Give a description of Japan and Corea. Draw a sketch-map showing their relative positions. Indicate the chief cities and the most important places in each.

7. Draw a map of the Baltic and White Seas, with their islands. Indicate the countries that form their shores, with the position of the chief harbours and fortifications. Describe the chief natural features, and name the principal exports.

8. Give an account of the lake-system of Equatorial Africa, and show, as fully as you can, in what way the discharge-waters reach the sea.

9. Name six of the most important indigenous timber-trees of New Zealand, and state in what districts they are found.

10. Name the countries or regions in which the following birds are found: Humming-birds, birds of paradise, penguins and petrels, kiwi, emu, ostrich, kaka and kakapo.

Geography.—For Class E, and for Junior Civil Service. Time allowed 3 hours.

1. What is a "watershed"? a "river-basin"? Name examples of each, selected from New Zealand and the British Islands.

2. What is meant by the "snow-line"? State (approximately) the height of the snow-line on the Alps, on Mount Egmont, Mount Aspiring, and on the Thibetan and Indian sides of the Himalaya.

3. Contrast the climate of Taranaki with that of the Canterbury Plains. To what causes do you attribute the chief characteristics of each?

4. Enumerate the six principal exports of New Zealand, name the places from which they are exported, and state the approximate annual value of each.

5. Write a short note on each of the following places: Shortland, Port Fitzroy, Miner's Head, Cheviot, Bay of Islands, Hokitika, Akaroa, Westport, Hokianga.

6. State the position of the following seas, name the countries washed by their waters, and any important places on their shores: Red Sea, Sea of Marmora, Bay of Fundy, the Levant, Sea of Azov, the Yellow Sea.

7. State the locality and (approximately) the height of the following mountains: Etna, Odin, Kosciusko, Table Mountain, Tongariro, Everest, Hermon, Aconcagua, Vesuvius, Aorangi (Mount Cook).

8. Draw a sketch-map of Scotland, with the outlying islands. Show the position of the chief harbours, cities, and mining districts.

9. Describe the chief natural features of the valley of the Mississippi. Indicate the position of States and chief cities on a sketch-map of the valley, and name the principal exports.

10. In what countries are the following animals found in a feral state: Lion, crocodile, wolf, grizzly-bear, ostrich, tiger, manatee, sheep?

History.—For Class D. Time allowed 3 hours.

1. Mention, with dates, the various conquests of Britain, and show how they have affected English history.

2. Give as careful an account as you can of the provisions of *Magna Charta*, and indicate some of the subsequent confirmations of the Charter.

3. Name the chief statesmen and favourites of Queen Elizabeth, and describe her *ecclesiastical* policy.

4. Explain clearly how the Stuarts came to have a right to the English throne. Point out what was done in discovery and colonisation in the reign of James I.

5. Characterize Cromwell as a soldier and a statesman, and describe, more particularly, his *foreign* policy.

6. Name the chief Acts passed in the reign of Charles II., and give the provisions of two of them.

7. Tell what you know of the formation and consolidation of the British Empire in India.

8. Sketch the career of Edmund Burke, and indicate his views (1) on the American question, and (2) on the French Revolution.

9. Narrate the history of the Peninsular War. Who has written the history of this war? and how does his work rank among English military histories?

10. Write two paragraphs on the chief social and political reforms carried out in Britain between 1800 and 1837.

English History.—For Class E, and for Junior Civil Service. Time allowed 3 hours.

1. Trace the descent of James I. from Henry VII., and give an account of three important events that happened in the first two years of James's reign.

2. Sketch the career of three persons between the reigns of James I. and Victoria whom you consider to have been, each in his own day, the foremost man of the period in which he lived.

3. When did the Union of England and Scotland take place? State the more important of the Articles of Union.

4. Explain, with date, the reform of the calendar. Up to that date what had been New Year's Day?

5. Name the States that joined in the American Rebellion, and relate the two most important events of that war.

6. When and by whom was the agitation for the abolition of the slave-trade first begun? Give date and circumstances attending the final emancipation of slaves belonging to British subjects.

7. Narrate the proceedings which resulted in the Reform Bill of 1832 being carried. What were the main principles of the Bill?

8. Which, of all the Kings since the Conquest, do you consider to have been the ablest general? Give a short sketch of his career.

9. State the most important provisions of the Statute of Mortmain, the Constitutions of Clarendon, and the Bill of Rights.

10. Compare the condition of English labourers in the reign of Elizabeth with that of the same class in the reigns of George IV and William IV.

History.—For Senior Civil Service. Time allowed 3 hours.

1. Describe the difficulties that William of Orange had to contend with as an English King; and characterize him as a statesman and a soldier
2. Sketch Marlborough's career, and estimate his character Name two great English writers who have carefully analysed his character, and have condemned him
3. Summarise the chief events in the reign of George I.
4. What do you know of Townshend, Wyndham, Pelham, and Newcastle?
5. Describe Pitt's foreign policy and its results between 1757 and 1761.
6. Describe the industrial development of Britain between 1790 and 1837
7. Indicate the chief facts (1) in the growth of freedom of speech, and (2) in the growth of religious toleration, between 1688 and 1837
8. Describe (1) Canning's foreign policy, and (2) Huskisson's financial policy
9. Give as full an account as you can of the Reform Bill of 1832.

Latin.—For Class D, and for Senior and Junior Civil Service. Time allowed 3 hours.

1. Decline, in the singular number only, *quidam poeta, sola virtus, alter dies* also the interrogative pronoun *quis*—(1) as used alone; (2) as used in agreement with a substantive.

Express in Latin With me, with us, with them (*ille*); with whom, with two sons and two daughters.

Give the parts of *augeo, fingo, divido, quaero, consulo, fallo, solvo.*

Distinguish between *servo* and *servio*, *jaceo* and *jacio*, *vinco* and *vincio*, *paro*, *pareo*, and *pario*, *veneo* and *venio*.

How are adverbs usually formed—(1) from adjectives of the first and second declensions, (2) from adjectives of the third declension? Give instances in the positive, comparative, and superlative degrees.

2. What are the common interrogative particles, and how are they used?

Express in Latin "Surely this is not true, is it?" "Was the thing done or not?" "The question is (*quaeritur*), whether the thing was done or not.

What is the rule usually given for the sequence of tenses? Express in Latin: "Tell me what you were doing yesterday"

3. Translate into Latin—

(1.) He died on the twenty-fourth of June, three days after I had seen him.

(2.) We must obey the laws if we wish to enjoy true liberty

(3.) He has deserved well of his country, and is worthy to be praised by all.

(4.) There is no doubt that these things are much easier to say than to do.

(5.) He departed from Sicily and came to Corinth, where he lived many years.

(6.) It is of great importance (*refert*) to us that you should assist us with your advice (*consilium*).

Translate—

Quorum studio et vocibus excitatus Cæsar, etsi timebat tantæ magnitudini fluminis exercitum objicere, conandum tamen atque experiendum judicat. Itaque infirmiores milites ex omnibus centuriis deligi jubet, quorum aut animus aut vires videbantur sustinere non posse. Hos cum legione una præsidio castris relinquit, reliquas legiones expeditas educit magnoque numero jumentorum in flumine supra atque infra constituto traducit exercitum. Pauci ex his militibus abrepti vi fluminis ab equitatu excipiuntur ac sublevantur, interit tamen nemo. Traducto incolumi exercitu, copias instruit triplicemque aciem ducere incipit.

Explain the dative *praesidio*.

[NOTE.—*Objicere*, to expose, *expeditus*, in fighting order, *jumenta*, baggage-mules, *interire*, to perish, to be lost.]

French.—For Class D, and for Junior and Senior Civil Service. Time allowed 3 hours.

1. Translate into English—

"Ces crimes multipliés étaient l'ouvrage de la terrible Frédégonde, qui semblait ainsi l'emporter sur tous ceux qu'elle haïssait, lorsqu'au milieu de tant de prospérités elle fut elle-même frappée d'une affliction qu'elle avait certainement bien méritée.

"Cette reine avait deux petits garçons qu'elle aimait beaucoup. En une seule nuit ces deux princes moururent de la même maladie, et Frédégonde, au désespoir au lieu de reconnaître dans ce coup du ciel la juste punition de ses crimes, n'eut d'autre pensée que de trouver de nouvelles victimes."

2. Translate also—

D'où venez-vous?

Qu'y a-t-il?

Que dit-on?

Veuillez prendre la peine de vous asseoir

Monsieur X. se porte à merveille.

3. Translate into French—

"In the immediate neighbourhood of the Temple of Vesta, and opposite to the Ponte Rotto, stands a house built of brick, and fantastically ornamented with fragments of ancient architecture. This building, from what cause it is extremely difficult to say, has long been known by the name of 'the House of Pilate.' From an inscription still remaining upon the walls, it appears that it was formerly the habitation of the celebrated Cola di Rienzi, the Tribune of Rome, whose singular and romantic history forms one of the most interesting episodes in the annals of modern times."

4. Translate also—
 What am I doing?
 Have you written to your sister?
 Put a little more sugar in my tea, if you please.
 When I am gone, you will do what you like.
 We have just finished this book.
5. Give the French for—
 I am walking.
 We were studying together.
 What are you doing now?
 Did you sleep well?
 Do not go away yet.
 I would translate.
 I feel nothing at all.
 Open (thou) the window
 Tell it to me.
 He neglected (preterite) everything.
6. Distinguish between—
Toutes les villes and *toute la ville*.
Un ancien soldat and *un vieux soldat*.
Il est fâché and *il s'est fâché*.
Il a froid and *il fait froid*.
Anoblir and *ennoblir*
- 7 Name tense, mood, and infinitive of—*sachez, dirent, souffert, ailles, réfugieront, teins, tiens, envoyât, disparurent, enquiert*.
8. Give the feminine of—*bas, sot, jaloux, docteur, veuf, auxquels, complet, vieux, aimable, lui-même*.
9. Give the French for—Two thousand, three hundred, two hundred and eighty-nine, Henry the Sixth, ninth, three-fourths, two-thirds, one-half, to-day is the fifth of November
10. When do you translate—
 To return by *revenir*, when by *rendre*,
 To know " *connaître*, " *savoir*,
 Country " *pays*, " *patrie*,
 Better, " *meilleur*, " *mieux*,
 Yes " *oui*, " *si*?
11. What mood is used after the conjunction *si*, and what tenses? Give examples.
12. Discuss fully the concord of the participles printed in italics :—
 Sa douleur fut aussi vive que nous l'avions *supposé*.
 Vous verrez des musiciens qu'on m'a *dit* être fort habiles.
 Les enfants que j'ai *vus* dessiner étaient fort habiles.
 Les huit jours que cette affaire a *trainé* m'ont *paru* huit siècles.
 Je lui ai *prêté* tous les ouvrages que j'ai *pu*.
 Elle s'était *proposée* comme garde-malade.
 Que de sommes cette entreprise m'a *coûté*.

German.—For Senior and Junior Civil Service. Time allowed 3 hours.

1. Give the nom. pl. and meaning of *Postillon, Studium, General, Trommel, Spital*.
2. Decline *Karl der Grösse, Herr Müller, Hans der gute Heinrich, Marie* (two ways)
3. Compare *hoch, nah, viel, gut, bald*, and give meaning.
4. Give the German for 18, 21, 37, 52, 101, 1894, $61\frac{1}{2}$; $\frac{3}{4}$, a hundred, one hundred.
5. Decline *sie*, she, and *sie*, they
6. *Man* (one, people, they) occurs only in the nominative what is substituted for the other cases?
- 7 Translate I have another glass (i.e., a different glass) Will you have another glass of wine?
8. What is the German for Austria, the Austrian, China, the Chinaman, Japan, the Japanese, France, the Frenchman, Russia, the Russian?
9. Give the 1st and 2nd sing. of the ind., the imperf., and past part., and meaning of: *zwingen, stehlen, waschen, fressen, rufen, reisen, reissen, legen, liegen, lügen*.
10. Translate I have been flattered, he has become a soldier, the house is built, the house is being built; he is getting quite old.
11. Give in full the imperf. ind. of *sich einbilden*. Give meaning also.
12. Write out all the tenses of the impersonal verb *geschehen*.
13. Translate: *einschlafen* and *einschläfern*, *fahren* and *führen*; *schwimmen* and *schwemmen*, *sinken* and *senken*, *trinken* and *tränken*.
14. Write out the pres. and imperf. ind. and subj. of: *dürfen, wollen, lassen*.
15. Translate: intensely, backwards, partly, at times, in some measure.
 Translate—
 1. Good morning, Sir; how do you do?
 2. I thank you, I am very well.
 3. Will you go for a walk with me?
 4. Yes, if you will promise not to go too far
 5. We will go to the park, if you like.
 6. Yes, by all means, for the park is very beautiful

- 7 You know the names of all the flowers, do you not?
8. Oh! no but I know the names of very many
9. Bring your umbrella with you, as I think it is going to rain.
10. The rain would spoil our clothes, otherwise it would do much good.
11. Shall we go in a boat? The river is charming.
12. Not to-day, we must now go home.
13. I shall write some letters this afternoon.
14. And I will go and pay some visits.
15. Well! good-bye, *au revoir!*

Translate into English—

Zu dieser Zeit fing Frau Elsbeth stark zu altern an. Lange, schmale Furchen zogen sich über ihre Wangen, das Kinn trat stark hervor, und das Haar erhielt einen Silberschimmer. Nur aus den dunkeln Tiefen ihrer vergrämten Augen konnte man noch herauslesen wie schön sie einst gewesen war.

“Ja, siehst Du, jetzt bin ich eine alte Frau,” sagte sie eines Morgens zu ihrem Sohne, als sie sich vor dem Spiegel die Haare kämte, “und das Glück ist noch immer nicht gekommen.”

‘Sei still, Mutter, wofür bin ich denn da?’ erwiderte er, obwohl ihm gar nicht so hoffnungsfreudig zu Muthe war.

Da lächelte sie traurig, streichelte ihm Wangen und Stirn und sagte “Ja, Du siehst mir ganz so aus, als hättest Du das Glück an den Flügeln gefangen, aber ich will nicht so reden,” fuhr sie fort, ‘was fing’ ich wohl an, wenn ich Dich nicht hätte?’

Solch ein Augenblick überströmender Liebe musste für lange vorhalten, denn oft, verging Monate, ohne dass Mutter und Sohn vor lauter Beklommenheit der Herzen sich etwas Zärtliches zu sagen wagten.

—Extract from “Frau Sorge,” by Hermann Suderman.

Also—

Lebt wohl, ihr Berge, ihr geliebten Triften
Ihr traulich stillen Thäler, lebet wohl!
Johanna wird nun nicht mehr auf euch wandeln,
Johanna sagt euch ewig Lebewohl.
Ihr Wiesen, die ich wässerte! Ihr Bäume,
Die ich gepflanzt, grünet fröhlich fort,
Lebt wohl! ihr Grotten und ihr kühlen Brunnen
Du Echo, holde Stimme dieses Thals,
Die oft mir Antwort gab auf meine Lieder,
Johanna geht, und nimmer kehrt sie wieder!

—Schiller's “Jungfrau von Orleans.”

Algebra.—For Class D, and for Junior Civil Service. Time allowed 3 hours.

1. If $a=1$, $b=2$, $c=3$, find the values of—

(1.) $a^3 + b^3 + c^3 - 3abc$,

(2.) $(a+b)^3 - 3(a+b)^2c + 3(a+b)c^2 - c^3$,

(3.) $\frac{2\sqrt{3a^3+b^3+c^3} - \sqrt[3]{2abc(a^3+b^3+c^3-3abc)}}{\sqrt[3]{a^2b^2c^2(a+b+c)} - 2\sqrt[3]{5a^3+5b^3-c^3}}$

2. State the rule of signs in multiplication.

Multiply $x^3 - 3x^2 + 3x - 1$ by $x^3 + 3x^2 + 3x + 1$.

Verify the result in the particular case of $x=3$.

3. Divide the product obtained in the last question by $x^3 - x^2 - x + 1$.

4. Show that $(x+a)(x+b) = x^2 + (a+b)x + ab$.

Hence write down the product of x^2 and $x+5$ and resolve into simple factors—

(1) $x^2 - 57x + 56$, (2) $x^2 - 56x - 57$, (3) $56x^2 - 57x + 1$.

5. What is meant by a common measure of two algebraical expressions? What by the highest common measure?

Find the highest common measure—

(1) of $54a^3b^2c$ and $36ab^2c^3$, (2) of $x^5 - 3x^3 + 3x - 1$ and $4x^5 - 7x^3 + 4x - 1$.

6. Simplify—

(1.) $\left(\frac{a+b}{a-b} + \frac{a-b}{a+b}\right) \div \left(\frac{a+b}{a-b} - \frac{a-b}{a+b}\right)$,

(2.) $\frac{2(a^2+ax)}{c^2-cy} \times \frac{bc+by}{ac-cx} \times \frac{ab-bx}{ac+ay} \times \frac{c^3-c^2y}{ab^2+b^2x}$.

- 7 Solve the equations—

(1.) $\frac{x+5}{6} + \frac{2x+5}{7} + \frac{3x+5}{8} = 3$,

(2.) $\frac{ax-b}{ax+b} + \frac{cx+d}{cx-d} = 2$.

8. In a certain school the number of girls is three-quarters of the number of boys. In a second school there are fewer boys and more girls, the total number of scholars being one more than in the first school. The excess of the number of boys in the first school over that in the second is one-twelfth the number of girls in the first. The number of girls in the second exceeds that in the first by one-twelfth the number of boys in the first. Find the number of boys and girls in each school.

9. Two steamers run between two ports. The one does the journey in $4\frac{1}{2}$ hours, the other takes $5\frac{1}{2}$ hours. The quicker boat starts from one end half an hour before the slower one leaves the other. When they meet, the slower one has travelled $19\frac{1}{4}$ miles. Find the distance between the ports.

Algebra.—For Senior Civil Service. Time allowed 3 hours.

1. Find the value of $\frac{abc+bcd}{3(a+b)} + \frac{ab}{d} + \frac{(b+c)d}{b}$, when $a=0$, $b=-1$, $c=3$, $d=2$,
and of $\frac{x^2+y^2-z^2}{yz+zx-xy} - \frac{\sqrt{x+y+z}}{2(y+z-x)}$, when $x=4$, $y=3$, $z=2$.
2. Find the value of p and q , so that in the product of x^2+x+1 and x^3+px^2+qx+r the coefficients of x^4 and x^5 may vanish.

3. Find the factors of a^3+8b^3 , $a^3+3ab+2b^3+bc-c^2$, $x^4+\frac{1}{x^4}+1$, $x^3+y^3+z^3-3xyz$.

4. Prove by means of the last result, or otherwise, that

$$\frac{a^6(b^2-c^2)^3+b^6(c^2-a^2)^3+c^6(a^2-b^2)^3}{a^3(b-c)^3+b^3(c-a)^3+c^3(a-b)^3} = abc(a+b)(b+c)(c+a).$$

5. Simplify—

(a.) $\left\{ \frac{a^2-ab+b^2}{a-b} - \frac{a^2+ab+b^2}{a+b} \right\} \div \frac{a^3}{a^2-b^2}$.

(b.) $\left\{ \frac{a^2-bc+c^2}{a} + \frac{a^2}{b+c} - \frac{3}{\frac{1}{b} + \frac{1}{c}} \right\} \times \frac{\frac{2}{b} + \frac{2}{c}}{\frac{1}{bc} + \frac{1}{ca} + \frac{1}{ab}} + (a+b+c)^2$

If $p = \frac{a\sqrt{a}}{\sqrt{a+b}}$, $q = \frac{a\sqrt{b}}{\sqrt{a+b}}$, find in terms of a and b the value of $\frac{(b-a)pq}{aq^2+bp^2}$

✓ 6. Solve—

$$3(x+a)(x-b) + 2(x-a)(x+b) = 5x^2$$

$$\frac{9}{x-4} + \frac{3}{x-8} = \frac{4}{x-9} + \frac{8}{x-3}$$

✓ 7 Solve—

$$\left. \begin{aligned} 3.4x - .02y &= .01. \\ x + .2y &= .6. \end{aligned} \right\}$$

$$x + \frac{ay}{a-b} = b = y + \frac{ax}{a+b}$$

8. A man started on a bicycle at the rate of 9 miles an hour, and intended to be back in two hours, at a certain point the bicycle broke down, and he walked back from that point at the rate of 3 miles an hour, arriving at his starting-point forty minutes late. Find how far the man travelled.

9. Two travellers start simultaneously, the one from A towards B, and the other from B towards A. They meet at a place 24 miles distant from A, and when one arrives at B the other is $13\frac{1}{2}$ miles from A. Find the distance between A and B.

Euclid.—For Class D, and for Junior Civil Service. Time allowed: 3 hours.

1. What do you understand by the words definition, axiom, postulate? Define circle, segment, semicircle, rhombus, polygon, and gnomon.

2. If two triangles have two sides of the one equal to two sides of the other, each to each, and have also the angles contained by those sides equal, then the triangles shall be equal in all respects.

Under what other conditions does Euclid show that two triangles are equal in all respects?

3. If one side of a triangle be produced, then the exterior angle shall be greater than either of the interior opposite angles.

4. State the axiom on which the theorems on parallel straight lines depend.

If a straight line fall on two parallel straight lines, then it shall make the interior opposite angles equal, and the exterior angle equal to the interior opposite angle on the same side.

If the straight line bisecting the exterior angle of a triangle be parallel to the base, show that the triangle is isosceles.

5. Parallelograms on the same base and between the same parallels are equal in area.

Describe a rhombus which shall be equal to a given parallelogram and which shall have its side equal to one of the sides of the parallelogram. In what case is this impossible?

6. If the square described on one side of a triangle be equal to the sum of the squares described on the other two sides, then the angle contained by these two sides shall be a right angle.

If two triangles have two sides of the one equal to two sides of the other, and each have a right angle opposite to one of these sides, then the triangles are equal in every respect.

7. If a straight line is bisected and produced to any point, the rectangle contained by the whole line thus produced and the part of it produced, together with the square on half the line bisected, is equal to the square on the straight line made up of the half and the part produced.

Given the difference of two lines, and the rectangle contained by them, find the lines.

8. To divide a given straight line into two parts, so that the rectangle contained by the whole and one part may be equal to the square on the other part.

Euclid.—For Senior Civil Service. Time allowed 3 hours

1. The opposite sides and angles of a parallelogram are equal, and a diagonal bisects it.

If the parallelogram be a rhombus, show that its angles are bisected by the diagonals.

2. On a given straight line describe a square.

If two squares are equal, show that they are described on equal straight lines.

3. In any triangle, the square on a side subtending an acute angle is less than the sum of the squares on the sides containing that angle prove by how much.

4. Prove that the squares on the diagonals of a quadrilateral are double the squares on the lines joining the middle points of the opposite sides.

5. Prove that angles in the same segment of a circle are equal.

Given the base and vertical angle of a triangle, what is the locus of its vertex?

6. If a straight line touch a circle, and from the point of contact a straight line be drawn cutting the circle, the angles which this line makes with the tangent are equal to the angles in the alternate segments of the circle.

If P be the middle point of the arc AB, prove that the tangent at P is parallel to the chord AB.

7. Inscribe a circle in a given triangle.

8. Show how to describe a regular hexagon in a given circle.

Prove that the area of this hexagon is double that of the equilateral triangle inscribed in the same circle.

Mechanics.—For Class D, and for Junior and Senior Civil Service. Time allowed 3 hours.

1. Define *acceleration*. Assuming the parallelogram law to be true for velocities, show that it also holds good for accelerations.

A body of 25lb. mass is acted upon simultaneously by forces of 45 and 60 poundals in directions at right angles to one another find the resultant acceleration.

2. If a body start from rest under the influence of a constant force, find the space described in a given time.

A body starting from rest is observed to pass over 80ft. in 4 seconds: what is the acceleration, supposed constant?

3. Distinguish between *momentum* and *kinetic energy* Enunciate the *third law* of motion.

A projectile weighing 140lb. issues from the mouth of a gun with a velocity of 2,000ft. per second if the weight of the gun be 5 tons, find the initial velocity of recoil. Compare the kinetic energy of the gun with that of the projectile.

4. What is meant by the *resultant* of a system of forces? Under what circumstances is the resultant of two forces equal (1) to their sum, (2) to their difference, (3) to each of the forces?

If forces 9, 12, and 15 are in equilibrium at a point, show that the directions of two of the forces include a right angle.

5. Define the *centre of gravity* of a body Explain what is meant by *unstable equilibrium*.

Two heavy particles, weighing respectively 4oz. and 9oz., are attached to the ends of a straight uniform rod 16in. long and weighing 7oz. find the position of the centre of gravity

6. A sphere, 6ft. in diameter and weighing 4cwt., is supported against a wall by a string 2ft. long fastened to the wall and to a point in the surface of the sphere find the tension of the string and the pressure on the wall.

7. Find the relation of the power to the weight in the *first system* of pulleys.

What is the number of pulleys in the third system when a weight of 600lb. is sustained by a power of 40lb.?

8. How is the pressure at a point in a fluid measured? One inch being taken as the unit of length, and one poundal as the unit of force, find the pressure at the depth of 24ft. in water

9. Explain the method of determining the specific gravity of a solid by means of the specific-gravity bottle. Mention, without describing, other methods which are used for determining the specific gravity of a solid.

10. State the conditions of equilibrium of a floating body

An iceberg floats with 1,000 cubic yards of its volume above water find its whole volume, taking the specific gravity of ice as 0.92, and that of sea-water as 1.03.

Physics.—For Class D, and for Junior and Senior Civil Service. Time allowed 3 hours.

1. What is a thermometer? Discuss the merits of the mercury thermometer Explain how the mercury thermometer is graduated.

Express 40° C. in the Fahrenheit scale, and -40° F in the Centigrade scale.

2. Enunciate the Law of Charles.

A litre of gas is cooled from 127° C. to -23° C. under constant pressure find the diminution of volume.

3. Distinguish between the specific heat and the thermal capacity of a body Explain how the specific heat of a solid body may be determined.

4. Explain the mode of vibration of the air in an open tube when it is sounding its fundamental note. What is the pitch of the note when the length of the tube is 3½ft.?

5. What is the distinction between a *real* and a *virtual* image? Draw figures illustrating the formation of a real and of a virtual image by a concave mirror

6. A convex lens held close to the eye is used as a magnifier to read a scale. If the focal length of the lens be 6in., and the distance of most distinct vision 12in., find the distance from the lens at which the scale should be placed, and the magnifying power of the lens.

7. Describe the gold-leaf electroscope. How may an electroscope be charged positively by means of a glass rod which has been rubbed with silk? How may it be charged negatively by the same means? Explain the electrifications which are produced in each case.

8. Describe Grove's voltaic cell, explaining particularly the use of the porous pot and the nitric acid.

Four Grove's cells, joined in series, give a current of $\frac{1}{4}$ ampere through an external resistance of 30 ohms if the resistance of each cell is $\frac{1}{10}$ ohm, find the average electromotive force of the cells.

9. Describe the copper voltameter, and explain its use. State the elementary laws of electrolysis.

10. What is a solenoid? State the rule for determining its polarity Explain the effect which is produced when an iron bar is introduced into a solenoid.

Chemistry.—For Class D, and for Junior and Senior Civil Service. Time allowed 3 hours.

1. Describe briefly two processes for procuring hydrogen gas from water

2. What weight of oxygen is there in 100 grammes of each of the following compounds *water, carbon dioxide, nitric acid, sulphuric acid*?

3. Describe briefly the experiments you would perform to show the chief properties of (a) oxygen, (b) chlorine.

4. Explain how you could get chlorine gas from (a) common salt, (b) hydrochloric acid, (c) bleaching-powder

5. In what respect does a "mixture" differ from a "chemical compound"? What evidence is there to show that atmospheric air is a "mixture," and not a "compound"?

6. In what respects do the three allotropic forms of carbon (a) resemble each other and (b) differ from each other?

7. Describe fully (giving the equations) the process for extracting iodine from seaweeds, on the manufacturing scale.

8. How many grammes of potassic chlorate would be required to furnish 1,000 litres of oxygen, the gas being measured at normal temperature and pressure (0° C. and 760mm. ? [1 gramme of hydrogen at 0° C., and 760mm. = 11.2 litres. At. wt. of K = 39.]

9. Show, by equations, the effect of heat on the following substances:—

(a.) Nitrate of ammonium.

(b.) Nitrite of ammonium.

(c.) Red oxide of mercury

(d.) Black oxide of manganese.

(e.) Sulphur, in atmospheric air

(f.) Sulphur without access to air

Elementary Biology.—For Class D, and for Junior and Senior Civil Service. Time allowed 3 hours.

[Candidates are requested to answer questions in one subject only.]

ANIMAL PHYSIOLOGY

1. Explain the differences between arteries, capillaries, and veins. What is the pulse, and in what portions of the circulatory system is it perceptible, and why?

2. The blood is said to be constantly subject to gain and loss of matter Explain this statement, showing how the gain and loss occur

3. Describe the structure of the liver, and give an account of its functions. How is it supplied with blood?

4. Describe the microscopic structure of voluntary and involuntary muscles. In what parts of the body are they respectively found? How is locomotion effected?

5. Give a short account of the organ of voice. In what way does speech differ from voice?

6. What are the chief digestive ferments, and by what organs are they produced? What changes do they cause in certain kinds of food, and why are these changes necessary? Describe experiments which illustrate your answer

7. Describe the structure of the ear, and show how the sensation of hearing is produced.

8. Give an account of the structure of the brain. What kinds of tissues are found in the brain? In what way do some of the nerves arising from the brain differ from the spinal nerves?

BOTANY

1. What kinds of tissue are found in any ordinary foliage-leaf, and how are they arranged? Explain the relation between the arrangement you describe and the functions of the leaf.

2. Describe an example of each of the following rhizome, tuber, bulb, corm. Show how they grow and multiply Draw figures showing their characteristic features.

3. What do you understand by (a) the pollination and (b) the fertilisation of a flower? Describe some flower in which pollination is effected by the agency of insects, and show how it takes place.

4. Give some account of the various ways in which plants are affected by light.

5. Give an account of the monocotyledons, and show how they may be distinguished from dicotyledons. Describe fully the embryo and seedling of any monocotyledon.

6. What is the essential nature of a seed? Describe two types of dicotyledonous seeds, and explain the differences between them. Trace the changes which occur during germination

7. State what you understand by an inflorescence, and briefly distinguish the chief forms of inflorescences, giving figures where you are able. What natural orders are characterized by their inflorescence?

8. Describe in detail the gynoecium (pistil) of any plant in which the carpels are united, and describe briefly the chief modifications of the gynoecium seen in other plants. Mention as many natural orders as you can in which the gynoecium is specially characteristic,

Shorthand—Senior.—For Senior Civil Service. Time allowed 3 hours.

INSTRUCTIONS TO SUPERVISORS.

1. Inform candidates before the time for taking up this subject that they may use pen or pencil as they please for taking notes, which should be written on ruled paper, but that they must transcribe those notes into longhand with pen and ink.

2. Inform candidates that when once you have commenced to dictate you cannot stop until the passage is finished.

3. Dictate the passages at the following rates of speed :—

(a.) 80 words per minute.

(b.) 120 " "

(c.) 150 " "

N.B.—It will be well to practise reading these aloud some time beforehand, looking at a watch or clock, so as to accustom yourself to reading at the exact rate indicated.*

4. Candidates are at liberty to take down one, two, or three passages, as they choose. All the passages required by candidates are to be dictated before any one begins to transcribe, and there should be as little delay as possible between the readings.

5. Inform candidates that rapidity in transcribing notes into longhand is essential, and note carefully on the transcribed copy the exact time taken in transcription. Candidates must not look at their notes while a passage that does not concern them is being read.

6. Inform them also that the clearness and accuracy of the shorthand notes (which must in every case be sent in attached to the transcript) will be taken account of by the examiner, and that they must not alter the shorthand notes after the dictation is finished.

PASSAGES FOR DICTATION

(a.) At the rate of 80 words per minute. Takes 10 minutes.

In Cox's work on "Institutions of the English Government," the following passage occurs :—

"Party diminishes responsibility by dividing it, subjects the Executive to sudden and dangerous changes, it confers office on the wise and the upright together with the incompetent and corrupt, and in turn ejects them from power simultaneously, degrades politics from a science to a warfare, assigning public office not to the ablest men necessarily, but to those who have the greatest political power."

1 I shall quote one | more authority, from the *Melbourne Age*, and this is the last quotation with which I shall trouble the House. It is contained in an article of the 16th April last. An able article in that paper in reference to the question of party government contains, amongst other things, the following passage, which I will ask the House to permit me to read :—

2 "Party means simply a struggle for place and power, and exhibits itself in that everlasting battle between | the 'ins and the 'outs which has operated so disastrously on the fortunes of the country

3 One of the great evils of the existing system is that it does not secure the best available man for each office. When a Premier is constructing a Cabinet the last thing he thinks of in choosing his colleagues is their fitness for the offices for which he designs them. The considerations are of quite a different kind. The nominee must, in the first | place, have a tolerably secure seat.

4 Another desideratum is that he shall be popular in the House—that is to say, that he has a strong body of personal friends who will be likely to support the new Administration for his sake, and quite apart from the merits of its policy

5 There is not a man in the House who does not deem himself to have 'claims, although, perhaps, the members who are really fit for inclusion in the Government | may be counted on one set of fingers. This is an evil of no small magnitude, since it deprives the community of the services of its best men. Nor do the evils of the present system stop here. At least half the members who voted for the expulsion of one Government and the installation of another are disappointed, and ready, on the first opportunity, to recommence the intrigue for a

6 fresh shuffle of the cards. It may safely be said that at least half the time and three-fourths of the energy of the Legislative Assembly are devoted to this everlasting struggle for possession of the Treasury benches, and the work of the country is proportionately neglected. It is readily conceivable that in such circumstances a Ministry is tempted to conciliate support by bestowing personal favours upon honourable members. It is true that such favours are only

7 indirectly conferred. They consist of concessions to constituents or to constituencies, and thus | contribute to maintain the popularity of the members in their respective districts. It is needless to say that these concessions are not always in accordance with the interests of the community as a whole."

The evils of the existing system of party government being thus established, it is natural to turn for the remedy to the system of an elective Executive, which has worked so successfully in Switzerland and elsewhere. That system is in operation in some of the States of the great American Republic, as, for instance, in Indiana, where the Governor, Lieutenant-Governor, Secretary of State, Treasurer, Auditor, Attorney-General, and Superintendent of Public Instruction are elected by popular vote and in Maine, where the Governor and his Council of seven are chosen by the two Houses of the State Parliament. But the model to which re-

* The matter to be read is marked off into sections, each of which is to occupy a minute. The Supervisor will perhaps find it advisable to mark it off into smaller sections, each containing the number of words to be read in fifteen seconds, and to read one section every quarter of a minute. As the candidates hear the passage read only once, the reader's articulation ought to be very clear, and the candidates ought to be so placed as to be able to hear well.

formers who desire to bring about the improvement of our government system most naturally
 8 turn is that of Switzerland, where the elective system has now stood, with entire success, the
 test of nearly half a century's experience. Under the Constitution of 1848, revised and im-
 proved in 1874, the Federal Council, which, in the words of Sir Francis Adams, "is in the nature
 of an Executive Committee," is elected by the two Chambers—the National Council, of 145
 9 members, elected by manhood suffrage and the Council of States, of 44 members, represent-
 ing the cantons, elected, in most cases, by the legislative bodies, but in some by the people.
 The Federal Council—the Executive—consists of seven members, who are chosen for three
 years, being the same term as that for which the two Houses of the Legislature are elected.
 The President of the Executive and the Vice-President are chosen by the Legislature, and hold
 those positions for one year only, being succeeded by other members of the Executive. At page
 10 58 of his interesting work

(b.) At the rate of 120 words per minute. Takes 10 minutes.

I refer, of course, to the honourable gentleman's speech, much of which was "tall"
 enough, in all conscience. But let me assure the honourable gentleman, as an old friend, that
 he is not designed to be a financial raven—he does not croak well. "The sad, presaging raven,
 that tolls the sick man's passport," is not the sort of bird he resembles, if I ventured to
 compare him with any bird it would be with something cheerier and chirpier. But he has
 departed from his old custom, and has tried tragedy. If he could adopt the manner of some
 honourable gentlemen on that side—for example the corrugated earnestness of the member for
 1 Wairarapa, the simulated ferocity of the member for Clutha, or the solemn melodrama of the
 gentleman to whom I have the honour to reply—I have no doubt that he would have done his
 work well. But the fact was that, as he went on and on, talking about these deficiency bills,
 this sinking revenue, this rising expenditure, this general galloping to bankruptcy, this
 "charnel-house of misery, reeking with woe," this "litany of sorrow," the honourable gentle-
 man smiled and beamed, and his voice grew cheerier and brisker, and there was such an air
 2 of happy prosperity about him that, instead of reminding one of the prophet of evil, he
 reminded one of a very genial host when he offers one an especially good cigar. The fact is,
 my honourable friend cannot look the part. One cannot feel that he means it or thinks it.
 One feels, as he goes on prophesying this utter bankruptcy and smash of the colony, that he is
 the very last man in the world to believe his own prophecy. He reminded me of the cele-
 brated Dr Cumming, who prophesied that the end of the world would take place in exactly
 eighteen months, and, having done that, to the horror and dismay of a large and credulous
 public, thereupon went and renewed the lease of his own house for a long term of years. That
 is the attitude of the honourable gentleman with regard to the approaching ruin of the colony.
 3 If he, Sir, will take advice from an old friend, he will go back to his old cheery style of
 picture—something, Sir, with a trunk railway in the foreground, and a bit of a boom in the
 middle distance. That is the sort of picture my honourable friend can paint, and which we all
 like to hear him paint, as when he sketches the Awarua Block, for example—that great country
 which only wants a trunk line of line of railway to make it "the garden of New Zealand."
 With regard to the cheap-money scheme, as I say, this House, no doubt, was returned—this
 party was returned—to oppose the old pernicious habit of borrowing money—borrowing
 4 millions for public works and squandering them for political purposes. We were returned
 not to go on borrowing millions for the purpose of building palatial public edifices and making
 political railways. But, Sir, I discriminate between borrowing in which you are secured as
 regards the principal and in which the interest is provided for you—I discriminate between that
 borrowing and the bad old borrowing which we were returned to put a stop to. Why does the
 taxpayer object to borrowing? Because, Sir, in the first place, there is the great loan principal
 which the country must some day meet, and, in the second place, there are the interest payments
 5 which have to be met from day to day by taxation. In raising money to lend to the farmers,
 call it borrowing if you like. I do not care what you call it, so long as you understand the
 thing itself—so long as you distinguish between that borrowing for which the State has to
 provide both the principal and the interest, and that borrowing which will not impose burdens
 on the taxpayers, but which will relieve the taxpayer, producer, and settler. Distinguish
 between that borrowing and the borrowing which will lead to an increase of the burdens upon
 the people of the country. Sir, what is wanted in New Zealand? Cheap money. What is
 6 it that is standing in the path of progress? It is that eternal burden of interest that is rolling
 up, piling up, lying upon the shoulders and weighing down our toilers, breaking their hearts,
 paralysing their energies. There never was a time when it was more burdensome to the indus-
 tries and people than it is now. There never was a time when the energy and courage of the
 colonists were better shown than now. Why in the last few years they have faced the most
 extraordinary fall in the price of their produce, and in spite of that heart-breaking fall they
 have gone on toiling, working, increasing the output, until the volume of our exports has been
 greater than ever it was, although they have got so much less for it. And what has been
 7 weighing upon the heroic colonists of New Zealand? I say it is the iron law of interest.
 The honourable member for Selwyn, who objects so much to this scheme, has himself furnished
 the best apology for it by describing the relentless course of the appreciation of gold. What
 must we do to meet the appreciation of gold, which is making money dearer everywhere? We
 must take steps to make money cheaper. We cannot raise the price of our produce. No
 Government on earth could in New Zealand raise the price of New Zealand produce in the
 English market. What must we do? Lower the price of money to the New Zealand pro-
 8 ducer; and until we do that the New Zealand producer will be nothing but the bond-slave of
 the London money-lender. I say it is right that the credit of the State should be used to take

this frightful burden off the backs of our producers, and that is why I distinguish between the borrowing of the past, for the purpose of adding to the burdens, and raising money now for the purpose of lightening our burdens. The only power in New Zealand which can cheapen money is the State, because the State is the only institution in New Zealand which can borrow money cheaply. It is all very well to say that we should simply give facilities to the lenders in England. What has been the history of money-lending to the producers in New Zealand without State interference? The only power that can get money out of the English money-lender at a cheap rate of interest is the State. The State can get it cheaply, and that is why we say the money should be raised by the State. Sir, I say again I distinguish between the borrowing of the past and the borrowing of the present. I do not take the same view of it as the honourable gentlemen on that side. I may not understand the Budget, but I think I do. They frankly admit they do not understand it, and therefore, I think, that discounts their criticism of it. I see prudent, legitimate financing

(c.) At the rate of 150 words per minute. Takes 5 minutes.

I have not heard all that has been said in this debate by a long way. I am quite sure a number of good things have been said, but what I have heard for the most part has not been so much a grave and earnest discussion of financial, economic, and political topics as a series of charges of Ministerial corruption, autocracy, and incompetence from the one side, and indignant denial on the other side, with a good deal of *tu quoque* on both sides. My chief objection to this prolonged speech-making centres in the fact that all the questions which have been talked about, and during which the same statements have been iterated and reiterated, will come up again in the form of Bills for practical discussion, when the details will be before us, and when we can form an intelligent opinion of how the particular proposals will work out the details being of as much if not more importance than the principles involved. Until then, I think that a general indication of opinion might have served every useful purpose. Why should honourable members be wasting their good things at the beginning, when they would tell so much better at the end? The first thing that has struck me on this occasion is the pessimism of my friends on the Opposition benches. They tell you in every mood and tense that the country is going to the dogs—the dumb dogs, I presume, and, if one did not know them, he would be sure they had lost heart because of what they mourn. The fact is, however, that, for gentleman who have a stake in a country doomed, as they say, to destruction, they enjoy themselves privately more than you would suppose. They dine comfortably they have their little jokes, they even indulge in a dance occasionally, and, altogether,—except on these benches, when they seem to be playing a part,—they take after Nero, who fiddled while Rome was burning. Seeing they are not really frightened, far less hurt, might not these gentlemen take heart of grace and, instead of raising difficulties and obstructions, put their shoulders to the wheel and help to speed on the progress of this fair young country? “Now is the winter of their discontent” but they might think of the “glorious summer” that is coming.

What might be done if men were wise!
 What glorious deeds, my brother,
 Would men unite to do the right,
 And cease their scorn of one another!

Dickens tells us of an unfortunate man who could not keep the head of Charles the First out of a memorial he was constantly drawing up, and it would appear as if the aggressiveness of the | honourable member has caused his name to be brought into the speeches of most members of this House. The charge he made against a large majority of them almost necessitates individual repudiation. This honourable gentleman, who appears to have assumed the leadership of the Opposition, has been particularly strong in his condemnation of the Government. If he has no objection to this course himself, it is not for others to offer any, but he need not have developed quite so strongly the characteristics of what Thackeray's waiter would call a ‘harbitrary gent.’ Of course, the members of the Government are fair game for his or anybody's censure, but the honourable gentleman forgot his tact as well as his courtesy when he spoke of a large majority of the members of this House as dumb, driven dogs. Such a charge would not have been pleasant hearing had it been true, but, seeing there is not, so far as I know the shadow of a shade of truth in the statement, it is simply an insult to a number of gentlemen who hold their opinions as intelligently and independently as does their calumniator. Generally speaking, when the honourable gentleman's denunciation is looked at closely, it turns out—if he will allow me to say so—to be a complaint that those who differ from him have got the upper hand: and so, if he cannot change this state of affairs, he can show his contempt for it. If he cannot convince those who differ from him, he can, at least, call them names and sneer at them, and show how vastly superior he is to the common run of members. The great Lord Beaconsfield defined an agreeable man as a man who agrees with you

Shorthand—Junior.—For Junior Civil Service. Time allowed 3 hours.

INSTRUCTIONS TO SUPERVISORS.

1. Inform candidates before the time for taking up this subject that they may use pen or pencil as they please for taking notes, which should be written on ruled paper but that they must transcribe those notes into longhand with pen and ink.

2. Inform candidates that when once you have commenced to dictate you cannot stop until the passage is finished.

3. Dictate the passages at the following rates of speed :—

- (a.) 50 words per minute.
 (b.) 80 " " "
 (c.) 100 " " "

N.B.—It will be well to practise reading these aloud some time beforehand, looking at a watch or clock, so as to accustom yourself to reading at the exact rate indicated.*

4. Candidates are at liberty to take down one, two, or three passages, as they choose. All the passages required by candidates are to be dictated before any one begins to transcribe, and there should be as little delay as possible between the readings.

5. Inform candidates that rapidity in transcribing notes into longhand is essential, and note carefully on the transcribed copy the exact time taken in transcription. Candidates must not look at their notes while a passage that does not concern them is being read.

6. Inform them also that the clearness and accuracy of the shorthand notes (which must in every case be sent in attached to the transcript) will be taken account of by the examiner, and that they must not alter the shorthand notes after the dictation is finished.

 PASSAGES FOR DICTATION

(a.) At the rate of 50 words per minute. Takes 10 minutes.

That appears to be the leading question. Yes and No. Doctors differ I must therefore judge for myself, having little faith in doctors at any time, and not much in financiers who fancy they see farther into a millstone than plain folks. Their distinctions occasionally remind me of the boy, in Sir Walter Scott's novel, who was rated by a traveller for losing at pitch-and-toss the half-crown he had given him. The boy was equal to the occasion and at once boasted that he had not lost it at pitch-and-toss, but at "neevie-neevie-nack." | Let us see. Borrowing, as a rule, is bad, and lending is not much better, but it is only curmudgeons that neither borrow nor lend, the maxim of Polonius to the contrary notwithstanding, and to lend money at a cheap rate to the struggling farmers of the colony seems to | me one of the most desirable things that could possibly be proposed to us, if it can be done consistently with the welfare of the people as a whole, and with the fitness of things. The Government evidently believe that it can be done, and they propose to ask those | who have money for investment to lend it to our farmers, and the State will guarantee that these farmers shall repay it, with the interest agreed upon. Is not the proposal on all-fours with that of a man wanting to borrow, say, £50, who cannot get his bill discounted without an indorsement? He asks his friend to assist him, and the friend does so. Is this friend, in these circumstances, borrowing money? I dare say honourable members will agree with me in thinking that he is not. He is, unquestionably, responsible for the money, but he relies upon the solvency and the honour of his friend to hold him scathless, and in most cases he is quite safe. I need not repeat—it must have been often said already—that in the proposed borrowing the State, as I understand it, is asked to back a bill for the settlers. We are guarantors, but not borrowers; and we are safer than the ordinary guarantor because we take security for our guarantee. But in a transaction of this kind everything depends upon the details, and I should decline to commit myself in the slightest degree until these are clearly before us. Besides, I may say at once that I am not enamoured with the idea of going to the English market for money, even for farmers. It may be a necessity, but it should only be a dire necessity that should drive us to it. The London Stock Exchange is very expensive, and as unscrupulous and immoral as Monte Carlo, and we have no call to spend the money of settlers in helping to keep up such a dead-weight. If we can find the money in the colony many objectionable features at once disappear The interest would not leave us

(b.) At the rate of 80 words per minute. Takes 10 minutes.

I am sure, Sir, that we have all listened to a very pleasant speech—I may say, almost an airy speech—delivered in a style of jocosity which for some years has been foreign to the bench occupied by the honourable gentleman. Like him, I have to begin my speech with an expression of regret and with a compliment. As he complimented the honourable member for Ellesmere upon the manner in which he has borne himself upon his first appearance | in a new character, I have to compliment the honourable gentleman on the same thing, and I have also to compliment the Opposition upon having at last made up their minds to appoint so capable and so reasonable a leader The honourable gentleman followed that compliment up by very properly expressing regret at the absence of the worthy and experienced politician who is succeeded by the honourable member for Ellesmere. So I may be permitted, although as an opponent, to say the same thing, and to regret that Parliament has lost a public servant so experienced, so honourable, and so industrious as the Hon. William Rolleston. But, Sir, the honourable gentleman, in the most polite and pleasant manner, complimented the mover and seconder of the Address, and, coming from an opponent, I am sure this compliment must be very grateful, and will be well received. Though not an opponent, I am quite sure it will not be considered out of place on my part if I also congratulate my young brother-members on the way in which they have acquitted themselves this evening. It is a great pleasure to my-

* The matter to be read is marked off into sections, each of which is to occupy a minute. The Supervisor will perhaps find it advisable to mark it off into smaller sections, each containing the number of words to be read in fifteen seconds, and to read one section in every quarter of a minute. As the candidates hear the passage read only once, the reader's articulation ought to be very clear, and the candidates ought to be so placed as to be able to hear well.

self as a young man, and myself a young New-Zealander, to see two young members, who are also New-Zealanders, bearing themselves so worthily upon their first entrance into this arena. Sir, the honourable gentleman dealt with the present, he dealt with the future, and he dealt with the past. | He gave us historical reminiscences and he did not fear to plunge into the future to show us the ruin that would be brought upon the country through the misrule of a despotic and imperious Premier, who was accustomed to parade through the country attended by a troop of co-operative lictors, bearing the symbolical fasces. I shall not attempt to follow the honourable gentleman's plunge into the future that is a region where I do not care to follow the | honourable gentleman. I do not profess to know so much about the future as honourable gentlemen on that side of the House. We believe that "Never prophesy unless you know" is a capital maxim, and when my honourable friend over there was condemning all the special settlements, and prophesying that ruin would overtake them because prices were low, and would remain low, I felt inclined to remind him that when prices are at their lowest, and things at their worst, | is just the time when they are beginning to mend and to get better. Although I cannot follow my honourable friend into the future, yet, when he turns to the past and the present, when he steps upon the solid basis of fact, then I shall not mind following him, and, although I cannot hope to deliver so pleasant and agreeable a speech, yet things are so harmonious this evening, I think I must use the time-honoured phrase, and | trust I shall not do anything to disturb the harmony of the night. Sir, like the honourable gentleman, I have to regret the fact that this House has lost one or two very useful and upright representatives. I may, indeed, although an opponent of the honourable gentleman s, say that I am sorry to see that the bad seasons which have so fatally told on the harvests of the colony seem to have told as badly on the political harvest of our honourable friends over there as they have on the wheat harvest. Judging from the sparse results those benches appear to show, the yield per acre is not very high. Notwithstanding this, it is very pleasant for one to see that the crop, so far as it goes, appears to be of excellent quality, and that, to drop that metaphor, one or two of the very best specimens of the Conservative party are still with us, and long, say I, may they remain, it being the very best possible thing for a good Government to have a good Opposition. We like opposition we want it, and we hope to have lots of it. Well, Sir, my honourable friend, as I say, strayed back, and he gave us one or two specimens of the bitter cry of the beaten candidate. We were told why they were beaten. There are always, as we know, many reasons why a man loses his election.

(c.) At the rate of 100 words per minute. Takes 5 minutes.

Well, upon my word, I fully expect when I take up the Opposition papers to-morrow to read that the death of the late President Carnot was instigated by the Minister of Labour, and fomented by the *Labour Journal*. I am certain that had a mutiny broken out in India the other day it would have been said that the Minister of Agriculture had sent emissaries over there to smear the trees in that country. But I did not expect we should be blamed for the silver panic, which caused the fall in the price of kauri-gum, for the | effect of the coal-strike in England on the industries there, for the financial crisis in Australia, which caused the breaking-down of financial institutions here, or for the enormous growth of wheat in India, the Argentine, and Australia, which, I suppose, was at the bottom of the unprecedented condition of the market in Mark Lane. I did not think that all these things would be laid at the door of the unhappy Government. If we are blamable for these things it must be because we have caused them, and, if we have caused them, then we have caused these | panics and other calamities in foreign countries to which I have alluded. Is it not ridiculous that we should be charged with causing the industrial disturbances of the whole world? No, Sir, the Government has not caused these things. But, though I do not profess, any more than the honourable member for Inangahua, to be able to put my finger on the cause of the great "unemployed" problem of the world, I can say I believe it lies in a cause far wider and far deeper than anything we can discuss in this House, or that any one in | New Zealand can affect. We can palliate these frightful national evils, we can face and reduce them more than that we cannot do. Why is it that, because over the producing countries of the world industry and commerce and production are strengthened, therefore that very industry and growth of production should cause ruin to millions the world over? What is at the bottom of the extraordinary problem of over-production? Why is it that production and industry, which actually increase the solid wealth of the world, should sometimes increase the distress and sufferings of the people who helped to produce | that wealth? The thing is a paradox. This is a mighty, world-wide problem. It is one which the deepest thinkers and the most earnest students of the social problem have set themselves to solve, and who so far have failed. I believe that so long as the world sticks to the present method of exchange, and so long as the world is ruled by what is called the capitalistic system, so long shall we see these extraordinary industrial crises and panics, and I do not believe that any answer can be given for it by any one Ministry

Maori.—For Senior and Junior Civil Service. Time allowed: 2½ hours.

1. Translate the following into English:—

Ko te korero mo te haerenga mai o Ngahue. Ka tae a Ngahue ki te Wairere, ka patua te Moa, ka haere Tauranga, Whangaparaoa, ka hoki ki Hawaiki. Ka korero kua kite ia i te whenua, tona kai, he pounamu, he Moa, a orahia iho e ia he toki, e rua aua toki, ko Tutauru ko Hau-hau-te rangi, i te hei-tiki etehi, i te kuru-pounamu etehi, ko te ingoa o taua kuru, ko Kaukautama, a e takoto nei ano kei a Te Heuheu, ko Tutauru i ngaro tata ake nei ano inaianei i nga uri o Tama-ihu-Toroa, i a Purahokura raua ko Reretai. Hoki atu nei a Ngahue, ka tae atu ki Hawaiki, whayhai rawa ake nei, kua rongu (ratou) ki tana korero ki te pai o tenei kainga o Aotea, a na reira i tika ai ta ratou heke mai.

2. Put the following into Maori:—

I love. I am loved. Do you owe the money? If you do you had better pay it. How many sheep have you got? I saw him yesterday. At what time did you leave home yesterday? Formerly ships were always made of wood, but now some are made of iron. Our canoe is made of totara, yours is made of kahika.

3. Put the following into English:—

No hea koutou? No te tonga tenei hau makariri. Tineia te ahi. Tutakina te taupoki o te pouaka. Ka tuwhera te kuwaha. Ki te haere koe aianei ka uaina koe. Wiriwiri ana te kiri i te mataku. Aua e hoatu te aho ki te tamaiti na kei whiwhi.

4. Translate “Ka hemo te patu a Huka.” Give the various meanings of the verb *hemo*. And illustrate the use of the adverbs *ano*, *atu*, *mai*, supplying translations of each example.

5. Translate the following passage into Maori:—

CHAPTER XVI.

NATIVE MEETINGS (HUIS AND HAKAS)

THE Maori, like the pakeha, is very fond of all kinds of meetings. He goes to meetings called to consider the affairs of the settlement, meetings about land, meetings in connection with the opening of churches and *runanga* houses, meetings for feasting and dancing—in fact, to meetings for all sorts of purposes. It is a very good thing for people to meet and talk over matters of importance, in this way every one may hear what every one else has to say, and all may profit by the wisdom of each. It is well that people should celebrate the opening of churches and meeting-houses, so that, whenever they go to these buildings, they may remember the time when the work in them began, and have pleasant thoughts about it. When young people are married, too, it is good for their friends to assemble and rejoice with them, to make merry and be glad, so that the old people may be able to look back with pleasure to their own wedding-days, and the younger ones to look forward to the time when their turn will come. It is also a good thing that people should, when holidays come round, rest from their work, amuse themselves, and be happy. The horse that works every day and all day long gets tired out at last and quite breaks down, unless he is turned out for a while to take his rest and his pleasure as horses will.

Trigonometry.—For Senior Civil Service. Time allowed . 3 hours.

1. Having given that the fourth part of the earth's circumference is ten million metres, find the earth's radius, and the length of one minute of arc on the earth's surface.

2. Define the unit of circular measure, and find its value in degrees.

Express the complements and the supplements of 40° , -40° , and 140° , in circular measure.

3. Find the sine and cosine of 30° . Mention all the angles up to 800° the cosine of which is $\frac{1}{2}$, and give the sine of each of these angles.

If $\tan 3A = -1$, write down the general value of A .

4. Find all the values of A which satisfy the equation, $3 \tan^2 A + 4 \sin^2 A = 2$.

5. Prove the following formulæ:—

$$(a.) \quad \cos(A - B) = \cos A \cos B + \sin A \sin B.$$

$$(b.) \quad \cos(A + B) \cos(A - B) = \cos^2 A - \sin^2 B.$$

$$(c.) \quad \tan(45^\circ + A) - \tan(45^\circ - A) = 2 \tan 2A$$

$$(d.) \quad \frac{\sin^2 A - \sin^2 B}{\sin A \cos A - \sin B \cos B} = \tan(A + B).$$

6. Given $\log 2 = .301$, and $\log 3 = .477$, find the logarithms of 18, 2.4, .25, and .015. Find also the logarithms of $\cos 30^\circ$ and $\cos 45^\circ$.

7. In any triangle ABC , find $\cos A$ and $\cos \frac{1}{2}A$ in terms of the sides.

In any triangle ABC , show that—

$$(a.) \quad \frac{\sin A + \sin C}{\cos A + \cos C} \frac{1}{2} = B,$$

$$(b.) \quad \tan \frac{A}{2} \tan \frac{B}{2} = 1 - \frac{2c}{a+b+c}.$$

8. From the top of a house 40ft. high the height of a spire, standing on the same level with the house, subtended a right angle, and the angle of elevation of the top of the spire was 60° find the height of the spire.

9. You are provided with a theodolite and measuring-chain, and are required to determine the distance between two rocks at sea which are visible from the shore. Indicate the measurements and observations which you would make, and state in order the successive steps in the calculation.

TIME-TABLE.
(See p. 5, Paper on School Management and Art of Teaching.)

General Distribution of Staff.	S.	9 to 9.45.	9.45	to 10.15.	10.15 to 10.45.	10.45 to 11.	11.30 to 12.	1.30 to 2.	2	to 2.30.	2.30 to 3.	3 to 3.30.
H.T.	X	Algebra		Latin	History Exercise	RECREATION.	Geography Exercise	Arithmetic		Science	Composition	Drawing
P.T.	6	Arithmetic	English Grammar	English Grammar	History Lesson		Geography Lesson	Reading		"	"	"
A.M.	5	"	History	History	Transcription		Grammar	Science		Composition	Reading	"
P.T.	4	"	Transcription	Transcription	Geography		History	Composition	REGISTER.	Reading (P.T.)	Science	Writing
P.T.	3	"	Geography	Geography	Grammar		Transcription	Reading		Object-lesson(A.M.)	Composition	"
P.T.	2	"	Copybook Writing	Copybook Writing	Reading		Geography	Object-lesson		Oral Composition	Reading	"
P.T.	1	"	Reading	Reading	Transcription		Copybook Writing	"		Reading	Oral Composition	"

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